THE BUILDER

A Journal for the Architect & Constructor

NOVEMBER 8, 1929. No. 4527

LEADING CONTENTS

ILLUSTRATIONS.

PLATES :

Bradford Improvement Scheme Competition : First Premiated Design. By Mr. C. Cowles-Voysey, F.R.I.B.A., Architect.

The Royal Masonic Institution for Girls, Rickmansworth : Design for Proposed School. By Sir Banister Fletcher, P.R.I.B.A.

PAGE

Bethnal Green Public Baths and Wash-houses. Mr. Arthur Ernest Darby, A.M.Inst.C.E., Borough Engineer and Surveyor.
- Exterior 777
- Small Swimming Bath 778
- Large Hall 779
- Crush Hall 779
- Plans 780

Bradford Improvement Scheme Competition : First Premiated Design. By Mr. C. Cowles-Voysey, F.R.I.B.A., Architect 781 783

Second Premiated Design. By Messrs. Arthur Bailey and D. H. McMorran ..... 784 & 785

Broadway House, Westminster. Messrs. Adams, Holden and Pearson, FF.R.I.B.A., Architects. From a Drawing by Mr. Walter M. Keesey, A.R.I.B.A. 766

Sculpture in the Archaic Room at the British Museum ..... 768 & 769

Old Cottages, Sidmouth, Devon 769

Westminster Abbey : Plan of East End and Poets' Corner Door 771

The Royal Masonic Institution for Girls, Rickmansworth : Design for Proposed School. By Sir Banister Fletcher, P.R.I.B.A. 775

ARTICLES.

PAGE

Leader : The President's Address 767

Notes ..... 768 & 769

General News 770

Competition News 770

Correspondence 771

Meetings 771

R.I.B.A. Inaugural Address 772-774

Notes on Illustrations 776

"The Builder" Debate—XXIII : "The Public Taste" 776

Bradford Central Area Improvement Scheme Competition 786

More Greek Studies—IX. By W. R. Lethaby ..... 787 & 788

The Modern Provincial Newspaper Building—III. By L. W. Thornton White 789

Societies and Institutions 790

Gas Conference at Eastbourne 791

Smoke Abatement 791

Architects' and Builders' Inquiry Bureau 792

The Week in Parliament 792

Recurring Defects : Their Cause, Prevention and Cure—XIX. By J. R. Taylor 793

The Powers of Water Companies 794

Book Reviews 794

New Buildings in London 795

Contracts Placed 795

Rates of Wages in the Building Trade 796

Contracts, Competitions, etc. 797-799

Proposed New Buildings and Other Works ..... 799 & 800

New Cinemas 800

Prices Current of Materials 801

New Buildings in Scotland 802

Trade News 802

Current Prices for Building Work in London 803

Tenders 804-806

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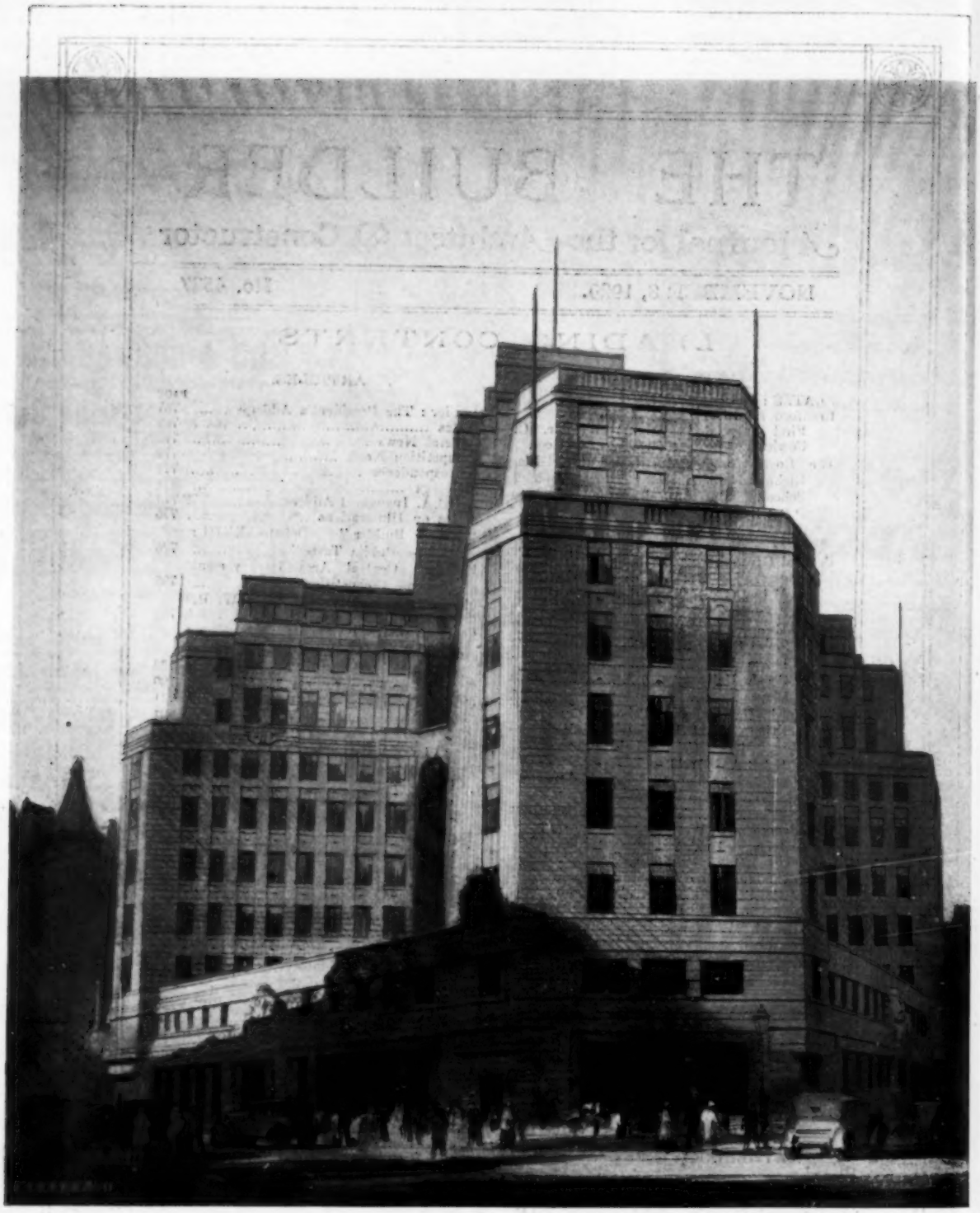
87TH YEAR



Broadway House, Westminster.

MESSRS. ADAMS, HOLDEN AND PEARSON, FF.R.I.B.A., Architects.

From a Drawing by MR. WALTER M. KEESEY, A.R.I.B.A.

THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXXVII. No. 4527. NOVEMBER 8, 1929

THE PRESIDENT'S ADDRESS.

THE address of Sir Banister Fletcher, the new President of the Royal Institute of British Architects, which was the principal feature of the opening meeting on Monday of the new Session, dealt with matters of great importance not only to the Institute and the profession at large, but to the citizens of London as well. We had looked to the new President with confidence to make what we may call a practical address as distinct from the academical essays with which we are familiar, believing that he would realise, as so many of us do, that in view of the great changes which have taken place in the Institute in recent years, he would consider that while some part of his address must rightly be devoted to the consideration of the art of architecture, the profession would look to him for some guidance on matters of every-day, practical importance.

The practical character of the President's remarks will be realised when we enumerate the subjects considered under the first of the four general headings of the address. Under the heading of Events of the Year, the President had something to say on the Development Scheme of the Institute; the Registration of Architects; the new Premises; the Scale of Charges; Conditions of Contract; Official Arbitration; Architectural Education; and the Greater London Regional Planning Committee. If his observations do not in some of these matters carry us very far, they are an indication to the profession at large of the manifold activities of the Institute and an assurance that the interests of practising architects are not being overlooked or forgotten.

Of more general importance—of importance, that is, to the citizens of London—are the President's observations on London bridges, and especially Charing Cross Bridge. We heartily agree with his remarks on St. Paul's and Waterloo bridges, and most emphatically endorse his criticism of the official scheme for the Charing Cross improvement. In our opinion there can surely be no event of such outstanding importance to architects and to the whole of London, as this great scheme of reconstruction in and about Charing Cross, and the observations of the President on the subject deserve the closest attention from us all. We cannot too strongly emphasise the fact that it is not just a question of bridges that we have before us; it is a question of the town planning of the centre and south of London, and we should not allow our attention to be diverted from the larger aspects of this Charing Cross improvement by a consideration of the convenience of one section of the travelling public, or of the undoubted gain, great and important as it is, of the removal of the railway station to the south side of the river. The accomplishment of this is apparently in sight, but we must not pay too high a price for even this great boon, and we are surprised that some of those who appear to take an enlightened view of the future of London have shown a disposition to be satisfied with this achievement. The question is one for the citizens of London as a whole, and not for one section of them, and it is well to remember that the various services of London are paid for by the public and they have a right to demand a wider and more catholic view than that which appears to have been shown by those who have had the problem before them. We hold no brief for the advocacy of any particular scheme of the many we have published in our pages, but we are most emphatically of opinion that the wide and statesmanlike view of the whole subject has not yet been achieved, and that the various proposals for the treatment of the problem have not been adequately considered, even if they have been considered at all. Though holding no brief for any particular scheme, we have always contended that no scheme should be adopted for such an improvement until all suggestions have been carefully considered, and that the final decision should, as the President says, "be the result of consultation and agreement between all those who have a right to be heard."

We have given the greater part of the President's address in other pages, and our readers may read for themselves the nature and the value of his criticisms of the official scheme, the resolutions of the London Regional Planning Committee condemning the scheme and his comments on some of the alternative schemes which have been published in our pages; but the importance of the subject is such that we desire to emphasise by quotation in this article the President's criticism of the official scheme. As he says "The official scheme proposes a high level bridge occupying the site of the present railway bridge and reaching ground level at the Strand, where an awkward traffic circus would be formed, while at the junction of Waterloo Road and the approach road another circus is proposed. The official bridge with its approaches has, as one of its unfortunate features, a great length without any intermediate exits or entrances from the ground level, which will thus cause a great congestion of traffic at the points where it is discharged. Another bad feature is the length of main road tunnelling, with objectionable overhead viaducts; thus Belvedere-road, it has been stated, would be tunnelled for 600 feet, Waterloo-road for 420 feet, and York-road for 300 feet. I know of no such system of unsightly tunnelled and overhead viaducts in existence in the very centre of any European capital city. The scheme also necessitates the destruction of much valuable property such as St. Martin's Vicarage and schools, the 'Old Vic' theatre, Coutt's Bank, the India Store Depot and the Union Jack Club and would, therefore, be very costly."

The President spoke with no uncertain voice in considering this Charing Cross Improvement scheme, and he pointed out with emphatic emphasis that the whole future of London development on the south side depends on the treatment of the scheme. It is undoubtedly true that no satisfactory solution is to be found without a thorough grasp of the possibilities that await the adequate town planning of the south side of the river. To visualise what this all means is not to be expected from the unprofessional mind, but this view is one which can and ought to be obtained before we can adequately deal with a problem involving so much for the convenience and beauty of Central London. Amongst those to whom it is suggested the whole matter should be referred, for judgment, surely the architectural profession would emphatically name the President of that profession. In any event, the President has already deserved well of the profession in giving such prominence to the subject in his address, and we shall be surprised if the general public do not from this stage take a direct interest in the matter. If they and the Press do not, and if the chief representatives of architecture in this country fail to realise the need for energetic protest of what is contemplated by the official scheme we shall probably lament one of the finest opportunities for a great London improvement which has occurred for many years. One hopeful augury for the stimulation of this interest was the reception of the President's address and we may infer from the discussion which followed that architects, at all events, will not be lacking in support of his protest.

NOTES

Charing Cross Improvement.

We wonder how far our architects will respond to the urgent call of Sir Banister Fletcher for a reconsideration of the official scheme for Charing Cross. It is difficult to believe that the profession will remain supine when the Charing Cross improvements open up such a fine and unparalleled opportunity for the development of the convenience and beauty of Central London. The whole future of the city on the south side of the river, between Charing Cross and Blackfriars, depends on our present action. That area of the city is a curious example of lost opportunity and there is nothing in the condition of any great modern city which is such a reproach to our modern civilisation. Here is a part of London which surely provides the finest opportunities for the increase of wealth and beauty which no city of the world could equal. The possibilities of untold increment of city values should stir the imagination of us all. Amongst all the activities of town planning there is not to be found so conspicuous an occasion for the exercise of town planning skill, and herein lies the great importance and significance of what is so essentially bound up with the Charing Cross improvement. Such a great vision of the future for London has never before been unfolded, and if ever the architect had a mission for the exercise of his special powers it is precisely such a subject as this Charing Cross improvement, It is unthinkable that a short-sighted policy, even when sustained by the brilliant powers of our modern engineers, should be adopted where millions of money are to be spent and many millions more earned by a wide and enlightened vision. It is by no means a mere question of architectural adornment, any more than it is one of mere transport. It is the future benefit commercially as well as artistically which makes our present action so vital and far-reaching.

The British Museum.

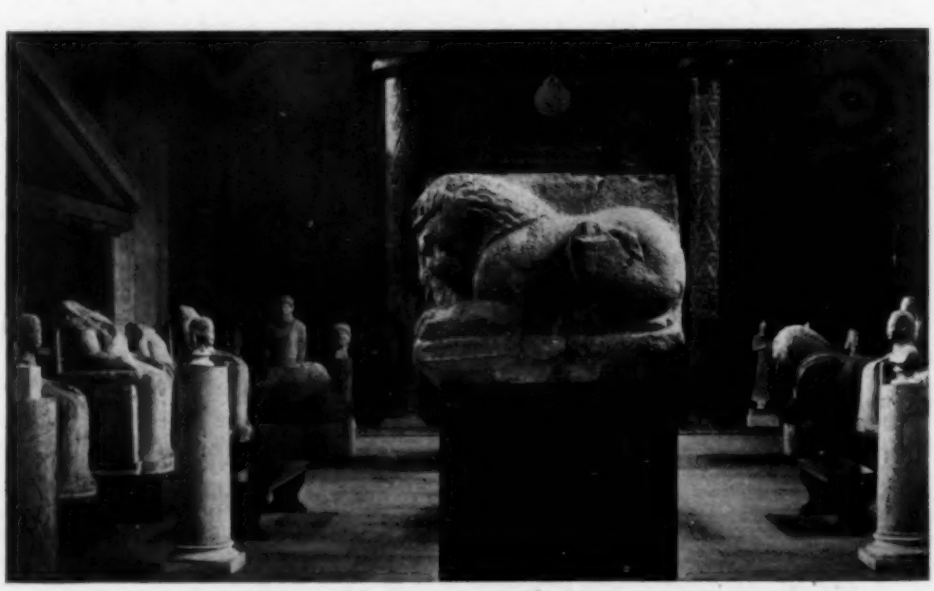
The architectural fragments and sculptures in the Archaic Room at the Museum have recently been rearranged, and by the courtesy of the Keepers of the Greek Department we are able to give two illustrations of the present aspect of the Gallery. Not only is the arrangement more orderly and impressive as a whole, but the objects seem better lighted and more accessible. One of the views shows the Lion Tomb from Xanthus in front and the wonderful columns of the Treasury of Atreus at Mycenae against the wall. The second view is of the same gallery seen from the other end. In front is the celebrated Harpy Tomb from Xanthus, which has been brought from a position at the side of the room, where it was not nearly so well seen. We congratulate the Museum on this excellent piece of "tidying up."

An Indian Institute of Architects.

Following closely upon the foundation of the Australian Institute of Architects comes the news of the creation of an Indian Institute of Architects. With the help of the R.I.B.A. a Bombay Association of Architects was established some years ago and admitted as an Allied Society of the R.I.B.A., while it was given representation on the Council of the Institute and was entrusted with important functions in architectural education and examination. This Bombay Association has been developed into an Indian Institute with the whole of the Indian peninsula as its province, and it is hoped that before long it will have branches in Bengal, Madras and the United Provinces, and the Punjab. In the field of architecture the circle of Imperial organization is now complete and the Indian Institute takes its place beside the Royal Architectural Institute of Canada, the Australian Institute of Architects, the Institute of South African Architects, and the New Zealand Institute of Architects, which are all working in federal union with the R.I.B.A. for the control and advancement of architecture throughout the Empire.

The Kelvin Medal.

The Kelvin Medal Award Committee, after consideration of representations received from leading engineering bodies in all parts of the world, have awarded the Kelvin Medal for 1929 to Monsieur Andre Blondel, of France. The Kelvin Medal is awarded as a mark of distinction in engineering work and investigation of the kinds with which Lord Kelvin was especially identified. Preceding the opening meeting of the session at the Institution of Civil Engineers, on Tuesday, reported on another page, an interesting ceremony took place when His Excellency, M. de Fleuriau, the French Ambassador, on behalf of M. Blondel, received the medal from the hands of Sir Donald Macalister of Tarbert, who was himself a pupil of Kelvin, and has been recently elected to a position formerly held by Kelvin, the Chancellorship of Glasgow University. Sir Brodie H. Henderson presided and gave some short account of the recipient's distinguished career. "Monsieur André Blondel," he said, "as engineer of the Ponts et Chaussées since 1889 and for many years the chief engineer of the lighthouse services, is distinguished by his work on signalling apparatus, both optical and electrical, and particularly for his investigations in connection with electrical measuring apparatus and photometry. In 1913, he became a Member of



Sculpture in the Archaic Room at the British Museum.

Old Cottages, Sidmouth, Devon.

l'Académie des Sciences and, in 1923, was appointed Inspecteur Général des Ponts et Chaussées. He is regarded by French electrical engineers as their most distinguished member, and is also an honorary member of both the British and American Institutions of Electrical Engineers." Sir Donald, in making the presentation, said that the medal had been instituted by 19 societies connected with engineering throughout the world, as an international memorial to one, Lord Kelvin, whose fame was international. Sir Donald requested His Excellency to convey the award to M. Blondel with the cordial and admiring wishes of his colleagues and the wishes of all present for a speedy and complete recovery to health.

Old and New Bath.

WHILST so much activity is afoot for the amelioration of our towns and country, we are not unlikely to err in the multiplication of various agencies. We note the formation of the Old Bath Preservation Society, the objects of which we heartily support, but surely those objects should form part of the aims of a Bath Civic Association such as other cities have founded. There are many things needed for the right development of Bath besides the preservation of its old work. The example set by the Civic Society of Birmingham surely indicates how all the things needed for the artistic protection and development of a city may be secured.

The Most Beautiful Structure.

MR. E. V. LUCAS in his weekly article in "The Sunday Times" includes many interesting comments upon architecture. "The most beautiful new structure in London, in my opinion," he says, "is the Mercantile Marine memorial by Sir Edwin Lutyens, close to Mark-lane Station. This simple but severe composition of stone and bronze, with its perfect curves and proportions, may not yet have been seen by many Londoners; for Tower Hill is, as we say, off the map."

An Objective Definition.

CONCERNING the above a correspondent writing to us says: "It is decidedly of interest to have the opinion of a cultured and sensitive literary artist, and one wonders if his judgment is as sound upon architectural art as upon other aspects of art. The regret is that no sketch accompanies the appreciation and that it is impossible for readers to form their own opinions upon an objective definition of architectural beauty. Unfortunately, Mr. Lucas tells us, he was unable to find any picture-postcards of this monument." We quite agree that it is the trouble with any appreciation of a building that it is often inaccessible to readers, and for this reason the influence of criticism is not so valuable as, for instance, a reference to a book which can be purchas d and studied at leisure.

The Royal Gold Medallist.

THE scholarly work of the firm of Messrs. Thomas Worthington & Sons, of Manchester, has been recognised by several generations of architects, and our best living representatives of the art will agree that the traditions of the firm are being even more worthily carried on to-day. The selection, therefore, of Mr. Percy Scott Worthington, M.A. Oxon., Litt.D., F.S.A., as the recipient of the Royal Gold Medal for the promotion of architecture will, we are sure, be heartily approved by his brother architects. The medal has been conferred on many distinguished architects, and while it may be considered that there are examples of distinguished work still unhonoured in this way, we believe the profession will agree that Dr. Worthington is well entitled to this distinction.

Sculpture in the Archaic Room at the British Museum.

GENERAL NEWS

Professional Announcement.

Mr. S. Sanders, P.A.S.I., Chartered Quantity Surveyor, is now practising at No. 257-9, Oxford Street, London, W.1. Telephone number: Grosvenor 1178.

New County Offices, Lancashire.

The Lancashire County Council offices at Preston are to be extended at a cost of about £120,000, and the figure of £10,000 has been mentioned for furnishing. The scheme includes the provision of a new County Hall, with various committee rooms adjoining.

Lord Waring's Gift to Sidcup.

Lord Waring received a deputation at his Kent home from the Sidcup Urban District Council on Saturday and handed them documents and title of 12 acres of playing-field which he and Lady Waring are presenting to the town. The field will be known as Waring Park, in honour of the donors.

Honour for the A.A. Secretary.

We learn that His Majesty the King of Sweden has recently conferred on Mr. F. R. Yerbury, Secretary of the Architectural Association, a decoration of Chevalier of the Royal Order of Vasa (first class), and permission for the acceptance of this decoration has been granted by His Majesty King George.

Restoration of Wrexham Parish Church.

Messrs. Thompson, of Peterborough, have commenced work on the restoration of Wrexham Parish Church, where the deathwatch beetle has been found in the roof of the north aisle. Considerable repairs throughout are being undertaken. Wrexham Church is one of the most interesting Perpendicular buildings in Wales. The architects for the restoration are Messrs. L. W. Barnard & Partners, of Cheltenham.

Resignation of Appointment.

We learn that Mr. C. E. Varndell, F.R.I.B.A., F.S.I., who has been a lecturer at the Architectural Association for upwards of 27 years, has, on account of pressure of work and indifferent health, been compelled to resign that appointment. During his connection with the A.A., many hundreds of students have had the benefit of his tuition, and we feel sure they will hope that by his relaxation he will be completely restored to health.

The late Mr. D. Leo Jones.

It is with much regret that we announce the death of Mr. D. Leo Jones, of Stockwell, who was one of the six people who lost their lives in the air-liner smash at Godstone on Wednesday. Mr. Jones, who was well known to many of our readers, was connected with Scaffolding (Great Britain), Ltd. He was 26 years of age.

Proposed Tunnel under the Thames Estuary.

A scheme is under consideration for the construction of a tunnel either between Dartford and Purfleet or Tilbury and Gravesend. The proposals are before the Essex and Kent County Councils and the Ministry of Transport. The engineers for the scheme are Messrs. Coode, Wilson, Mitchell and Vaughan-Lee, of 9, Victoria-street, S.W.1, who are working in conjunction with Messrs. Mott, Hay and Anderson, of 9, Iddesleigh House, Caxton-street, S.W.1.

Italian Garden at Eton.

The King of Siam, who is an Old Etonian, has made a gift to Eton of the Italian garden which is being made near the Provost's lodge and opposite College Field. His Majesty wished to do something for his old school, and the Italian garden is being laid out accordingly.

Modern Architecture.

Mr. Howard Robertson, S.A.D.G., has consented to deliver a lecture on "Modern Architecture" at the Northern Polytechnic, Holloway, London, N.7, on Thursday, November 21, commencing at 7 p.m. Members of the public will be admitted free. An interesting series of lectures is being delivered on Monday evenings from 7.30 to 9.30, the subjects including town planning, architectural acoustics, lift equipment, heating and ventilating of modern theatres, and architectural lighting. Full particulars of these lectures may be obtained from Mr. T. E. Scott, F.R.I.B.A., Northern Polytechnic, Holloway, N.7.

Fall of Masonry at Howden Church Tower.

One of the large perpendicular windows in the tower of Howden Parish Church, East Yorkshire, where a fire occurred on October 9, fell this week, and over a ton of masonry crashed. Further dislodgments of masonry are feared. In the fire, which, it is stated, broke out in the belfry, the lead in the roof of the tower, 130 ft. high, melted and poured into the chancel, into which also the bells crashed. Large cracks were caused in the battlements.

Lymore Hall Sold.

Lymore, the Montgomeryshire mansion, built in 1675, has been sold by auction for £3,500, by Messrs. Harrods, Ltd., to Mr. Fred E. Anderson, of Welshpool. The auctioneer announced that it was thought the sale would be cancelled, for someone made an offer of £10,000 to the Office of Works for the preservation and upkeep of Lymore, provided that Lord Powis, the owner, would give it to the nation, but the money was not considered sufficient to put the house into repair and preserve it as a national monument. Lord Powis greatly regretted the sale.

A Hyde Park Playing Field.

The National Playing Fields Association, through the generosity of Sir Howard Frank, chairman of the finance committee, have offered the sum of £5,000 to the First Commissioner of Works for the purpose of laying out the exhibition grounds in Hyde Park as a playing field. This will provide facilities for football, cricket, netball, bowls, and putting green. Mr. George Lansbury, the First Commissioner of Works, has accepted the offer, and it is expected that the work of laying out will be begun shortly.

Removal of Merchant Taylors' School: The New Site.

The Merchant Taylors' Company have resolved to move their school from its present quarters in Charterhouse-square. Founded in the City in 1561, the school was removed to its present site in 1875 because the original site had become inadequate. The Company have now decided that the present site and buildings have also become inadequate, and have signed a contract for the purchase of a site of nearly 250 acres adjoining Sandy Lodge station, near Rickmansworth. It is proposed to erect there new buildings with ample playing-fields and space for all possible developments. Building will begin as soon as possible. The architect is not yet settled, we learn, but the Surveyor to the Company is Mr. R. H. Mew, F.R.I.B.A., F.S.I., 119, Moorgate, E.C.1.

New Liverpool Stadium.

The Liverpool City Council has approved, without discussion, a recommendation of a large deputation of councillors who recently visited five towns in Germany and Holland that a stadium be erected in the city and that a section be proceeded with immediately, with a view to obtaining a grant from the Unemployment Branch Committee. The deputation has suggested that facilities for all forms of sports, parking places, a restaurant, dressing accommodation, and full social amenities be provided. They stated that after seeing the open-air baths forming parts of the stadiums in Germany, it was felt that no stadium would be complete without the inclusion of an open-air bath, accompanied by space for sun-bathing. Such bath should provide a large water area for swimming, another smaller area for diving, and at least two small pools for learners.

COMPETITION NEWS

Guildford Municipal Buildings.

In connection with the competition for plans for the proposed new Municipal Buildings at Guildford, the Town Clerk reported that it was proposed to invite the following to compete, with an honorarium of 25 guineas to be paid to each submitting a bona-fide design:—Messrs. Annesley Brownrigg & Hiscock; Messrs. T. J. Capp & Son; Mr. H. T. Chalcraft; Messrs. Clemence & Co.; Messrs. Coussmaker & Armstrong; Messrs. Dixon, Quick & Hodgson; and Messrs. J. H. Norris & Co. On the motion of Alderman Rapkins, however, the Council has decided that "no further steps be taken in connection with the preparation of plans and estimates for the new municipal buildings in Upper High-street until the suitability of the Tunsgate site has been reported upon and considered by the Council." The assessor to the competition is, as previously announced, Mr. T. S. Tait, F.R.I.B.A.

Proposed School Extension, Pontefract.

The new school at Willow Park, at present well advanced towards completion, is to be extended. It is learnt that local architects are to submit designs.

COMPETITIONS OPEN.

	Particulars published in "Builder."	Sending in date.
Façades of the new street from Paragon Station to Beverley-road, Hull, for the Corporation. Sir R. Blomfield, assessor. Premiums, £750, £350, and £150. Conditions from J. R. Howard Roberts, Town Clerk, Guildhall, Hull. Dep. £1 1s.	Sept. 6	Nov. 30
Town Hall and Municipal Offices, on site at Buccleuch-street, Dumfries, for T.C. Sir George Washington Browne, P.R.S.A., assessor. Premiums: £300, £200, £100. R. A. Grierson, Town Clerk, Town Hall, Dumfries. Dep. £2 2s.	Aug. 23	Dec. 7
Designs for "Pavilion of Light," at Olympia, offered by G.E.C. and *Daily Mail*. £1,000 in prizes for architects, artists and contractors. Sir E. Lutyens, Sir Duncan Watson, Messrs. P. Connard, Oliver Bernard, D. G. Tanner and G. G. Wornum, assessors. Apply, Electrical Comp., *Daily Mail*, Carmelite House, E.C.4 before October 26	Oct. 18	Dec. 14
Municipal pavilion and refreshment rooms, etc., on site of old Waterloo Hotel, for Aberystwyth T.C. Mr. Arthur Thornely, F.R.I.B.A., assessor. Premiums £100, £70, £30. Mr. T. J. Samuel, Clerk, Town Hall. Dep. £2 2s.	Sept. 27	1930 Jan. 1
Municipal Buildings, Assembly Hall and Law Courts in Victoria Park, Swansea, for the Corporation. Premiums: £750, £500, £300, £200. Assessor: Mr. H. V. Ashley, F.R.I.B.A. Mr. H. L. Lang-Coath, Town Clerk, Guildhall. Dep. £2 2s.	July 5	Jan. 19
Designs for Anzac Memorial, for the Trustees, to be erected at a cost of £75,000 in Sydney, N.S.W. Conditions from Agent-General for N.S.W., Australia House, W.C.2. Copies also at R.I.B.A.	Aug. 30	Jan. 29
New Police and Fire Stations in Manchester-rd., for Accrington T.C. Mr. H. J. Rowse, F.R.I.B.A., assessor. Premiums of £250, £150 and £100. Town Clerk, Accrington. Dep £2 2s.	Oct. 4	Feb. 28

Proposed Branch Library, Deptford.

In connection with the proposal to erect a branch library in the northern portion of the borough of Deptford, the Borough Council has been recommended to appoint Messrs. A. W. S. & K. M. B. Cross as architects.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.

The Westminster Abbey Sacristy.

SIR,—The last contention promulgated by the objectors to the erection of the Sacristy at Westminster may be best accounted as somewhat æsthetic and it makes no claim on practical grounds. The purpose appears intended to affright folk already sufficiently confused by this sort of controversy. Hitherto the ostensible objection alleged against the Dean and Chapter's proposal was that any Sacristy above ground on the east side of the north transept must obscure the radiating chapels where the chevet joins the transept. To aggravate this conclusion we are now told that the exquisite symmetry of the cruciform lay-out of this church will be spoiled beyond redemption. Moreover, it is also asserted that since the refounding of the Abbey the outline of this cruciform ideal plan was not tampered with.

In reply to that statement it must be observed how Henry III built his great sacristy in 1250 contemporaneously with the other thirteenth-century work, along the north side half-way between the transept and the west tower. The foundations show it extended at least 100 feet in length. By reference to the accompanying diagram it will be seen how the arrangement of the mediæval plan on the south of St. Edmund's Chapel at *A* was carried out. If repeated at *C*, on the north of the Chapel of St. John Baptist (as indicated by the dotted lines), the fine cruciform symmetry of the whole fabric would remain. Indeed, it would gain by being balanced in contour.

The obstructions incidental to the flying buttresses and the proximity of the historic Chapter House far exceed the risks of any little sacristy. The marginal sketch, looking towards the Poets' Corner door, shows how the apsidal chapels are hidden on the south of the chevet. Sir Gilbert Scott tells us how he carefully adhered to the dimensions of the ancient buttresses, and even if the capping gablets are a trifle higher than some suppose the original terminals to have been, the difference matters little except an improvement in shape of the abutments.

The row of old houses built on the site of the old sacristy at *B* shown by Wren's drawing of the north transept façade, dated 1719, were still standing intact in 1799, as described by Carter in the *Gentleman's Magazine* of that date. The Islip Chapel was then utilised as a rubbish repository and was boarded up in deal accordingly.

MAURICE B. ADAMS,
F.R.I.B.A. (retired.)

B.M.A. Extension, Tavistock-square.

SIR,—In your issue for October 25 there were published illustrations of my drawings for the above. I now observe that the side wings are indicated on plan as being "future extensions." May I say I have no authority for this and they should be designated "possible future extensions." The scheme illustrated shows as a whole "a possible development of a possible site" which might follow on the extension just completed.

C. WONTNER SMITH.

Christchurch (N.Z.) Art Gallery Competition.

SIR,—With reference to the above competition, may I point out that the assessor's report, extracts from which you published in last week's issue of *The Builder*, was for the preliminary competition some six months ago, the names of the competitors not being then disclosed. The names of competitors published and the order of award of selected designs is the result of the final competition. I think perhaps that this error should be rectified.

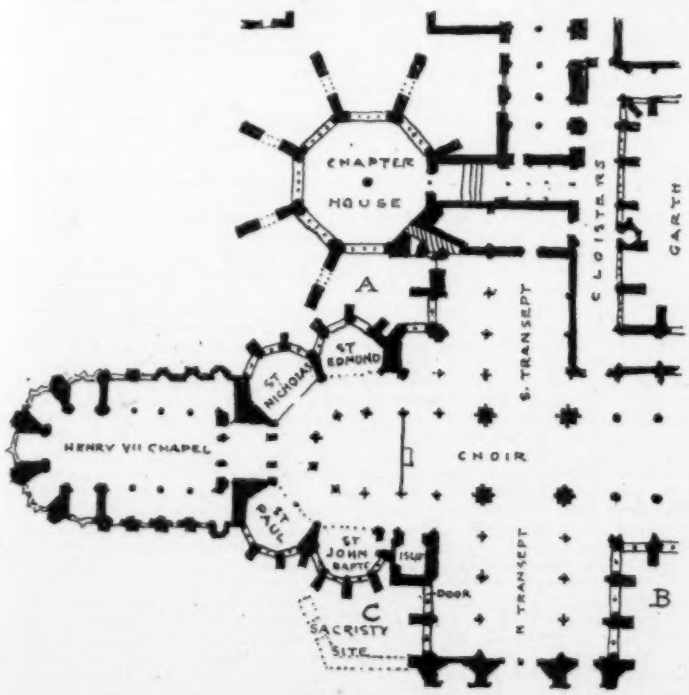
ALEXANDER S. REID.

[We believe our correspondent is right, although the information which we received from New Zealand did not make this clear. —ED.]

Memorial Tablets.

SIR,—What is the idea in affixing a memorial tablet to a building to which it bears no relation but to indicate that the site was once occupied by some other building, not a vestige of which remains? I could never quite make out what there is to look at.

ARTHUR GEE.



Westminster Abbey: Plan of East End.

POETS' CORNER DOOR

MEETINGS

FRIDAY, *November* 8.

Institute of Arbitrators, Incorporated. Discussion on "The Landlord and Tenant Act, 1927." At the Incorporated Accountants' Hall, Victoria Embankment. 4.30 p.m.

SATURDAY, *November* 9.

Association of Architects, Surveyors and Technical Assistants. Visit to India House, Aldwych, W.C.2. 2.45 p.m.

MONDAY, *November* 11.

Institution of Heating and Ventilating Engineers. Debate on "Panel *v.* Direct Heating." Borough Polytechnic, S.E.1. 7 p.m.

Surveyors' Institution. Opening address by the President, Mr. C. H. Bedells. 8 p.m.

TUESDAY, *November* 12.

Incorporated Institute of British Decorators. Mr. J. M. Holmes on "Expression: One Aspect of Design of Importance to the Decorator." 8 p.m.

League of Arts. Dr. Dearmer on "Byzantine and Byzantinesque Art."

WEDNESDAY, *November* 13.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher, P.R.I.B.A., on "Greek Architecture (3000-146 B.C.)." 6 p.m.

THURSDAY, *November* 14.

Institute of Arbitrators Incorporated. Capt. W. T. Creswell on "Procedure and Evidence in Arbitration." 4 p.m.

L.C.C. Lectures. Mr. Stafford Ransome on "Woodworking Machinery." At the Geffrye Museum, E.2. 7.30 p.m.

Victoria and Albert Museum. Mr. G. McN. Rushforth on "The Windows of a Mediæval Church and their Treatment as a Pictorial Scheme." 5.30 p.m.

Builders' Benevolent Institution. Annual Dinner. At the Hotel Victoria, W.C.2. 7 p.m.

Institution of Structural Engineers. "New Underground Railway Offices, St. James's Park." By Mr. M. J. C. McCarthy. 6.30 p.m.

FRIDAY, *November* 15.

London Society. Mr. Lawrence E. Tanner on "The Royal Mediæval Tombs of Westminster Abbey." 5 p.m.

Architecture Club. Dinner. At the Savoy Hotel, W.C.2. 7.30 p.m.

INAUGURAL ADDRESS.

ON Monday evening last, at 9, Conduit-street, Sir Banister Fletcher, P.R.I.B.A., gave his inaugural address to the Royal Institute of British Architects. The events of the past year, he said, which were stepping stones in the national advance of architecture, had been more than usual, both in number and importance.

THE DEVELOPMENT SCHEME.—The Council's proposals for the development of the R.I.B.A. were approved by a very large majority in the postal vote which was taken last June. They looked forward to the complete success of the scheme when it was brought into operation, and believed that it would serve the best interests of architecture and architects as well as consolidate the position of the Royal Institute.

THE REGISTRATION OF ARCHITECTS.—The Bill for the Registration of Architects would be pressed forward during this Session of Parliament. It had been carefully drafted and redrafted to meet every reasonable objection and to protect every legitimate interest involved, and so they had reason to hope that a measure which had been passed through all its stages in the House of Lords, and had been approved in principle by the House of Commons, would become law in the near future, and so regulate and define their professional position.

THE NEW PREMISES.—New premises were going to claim their attention, for the second year of Mr. Tapper's presidency was marked by the acquisition of a splendid site in Portland-place for the future home and headquarters of the R.I.B.A. The Council had decided that, in due course, an open competition was to be held for the design of the new building, which was of national importance.

THE SCALE OF CHARGES.—The Scale of Charges had been considered and revised by a special committee which had worked for a long time on this matter, and it was hoped that, when adopted, the Scale in its new form would eventually prove of help to architects on the material side of their practice.

CONDITIONS OF CONTRACT.—The difficult question of new Conditions of Contract had also received most careful consideration. The draft form which was submitted to members last session did not commend itself to them, and they were therefore back again at the old 1909 form. But as they were anxious to do everything in their power to satisfy the reasonable demands of the builders, they had offered to resume negotiations on the subject.

OFFICIAL ARCHITECTURE.—The question of what was known as official architecture had been raised again during the past year by the announcement that H.M. Office of Works was about to produce designs and plans for the erection of new Government buildings on the Calton Hill, Edinburgh. At the request of the Council, he addressed a letter to the Prime Minister pointing out that the design of a public building of such importance should be thrown open to the whole architectural profession, so that the best available talent might have a fair opportunity of expressing itself. They could only hope that H.M. Government would agree with the Council, and that a public competition would be held. In 1926 the Council appointed an Official Architecture Committee, and Sir Brumwell Thomas, who had been for some time the Chairman of that Committee, had furnished the Council with a suggestion for dealing with the matter. It was such a fair and temperate statement that he could not do better than place it before them. It was as follows:—

"The Official Architects are in many cases members of this Institute, and as such they have all the privileges, the protection and support which this Institute can give. The Institute cannot, however, be unmindful of the interests of those of its members in private practice who are equally entitled to all the privileges, the protection and support which the Institute can give them. But the greater and wiser policy of the Institute must ever be directed, with equal consideration and honour to all members, so that the best interests of the art of architecture in this country may be served. To this end it is recommended that the Government be approached in order that the matter may be considered, not as affecting the interests of private architects or official architects, but as influencing the advancement of architecture. Such an inquiry, conducted with a full sense of the importance of the larger issue, may not only find a solution to the immediate question with the Government, but will in all probability bring about a closer relationship between the Government and the Royal Institute which may lead to the establishment of continuity of policy in future." He thought, the President continued, the Council would agree that the result of such a discussion would be bound to influence public authorities throughout this country and also in the Overseas Dominions of the Empire.

ARCHITECTURAL EDUCATION.—He invited their attention to two important steps in connection with architectural education which had been taken by the Council since the last inaugural address:—(i) The Endowment of the Rome Scholarship, and (ii) The foundation of the R.I.B.A. Athens Bursary. He had heard it whispered that some of the younger men thought it was a waste of time to go to Athens and Rome to study the architecture of the past, that an architect had nothing to learn there, and that the less he knew about ancient art the more unhampered would be his development. It seemed to him that an open mind was likely to prove to be an empty mind, and that without knowledge of the past an architect was poorly equipped for the present. He also heard that this movement had even taken the form of advising young men not to trouble about the Soane and the Tite prizes, which gave a man a tour in Italy or France, but to treat them as altogether valueless. He hoped he had been misinformed, and he could not imagine any responsible teacher giving advice of such a nature. He would remind them that great architects had been students of the productions of the past and also travellers in other countries. They had absorbed the ideas of other men and other ages and had passed them through the crucible of their own mentality and, thus equipped, they had produced their own individual work. Were we to-day so puny that we should fear to cramp our style by study and to be overpowered by knowledge? Surely we could not afford to give up the accumulated knowledge of the art-forms of past ages, for a study of them should enable us to deal more easily and with more confidence with present-day problems. Tradition in art could not be lightly disregarded. Tradition was our rock-foundation and an architect who replaced it simply by his own self-sufficiency was building his house upon the sand.

THE GREATER LONDON REGIONAL PLANNING COMMITTEE.—The Town Planning Acts had provided for the regulation of the lay-out of large areas of land in the interests of public health, and should be responsible for a great improvement in housing conditions and in the general health of the people, which was so much affected by environment. Co-ordination, however, to regulate future regional planning, was most important, and the formation by Mr. Neville Chamberlain of the Greater London Regional Planning Committee was a most valuable step in the right direction. The Committee had been fortunate in having as its secretary Mr. Montagu Harris, O.B.E., who was not only a distinguished civil servant, but also fully conversant with town-planning problems, having been President of the Town Planning Institute in the year 1927-28. The Greater London Committee had appointed several sub-committees—(a) General Purposes, (b) Decentralisation, (c) Open Spaces, (d) Traffic, and these sub-committees were collecting reliable information for use in the future. It had as chief technical adviser, Dr. Raymond Unwin, F.R.I.B.A., an acknowledged authority on town planning. Other experts who were advising the Committee were:—Prof. S. D. Adshead, F.R.I.B.A., Mr. W. R. Davidge, F.R.I.B.A., F.S.I., Mr. Longstreth Thompson, F.S.I., and Mr. Frank W. Hunt, F.S.I. Dr. Unwin had in hand the preparation of a town-planning scheme for Greater London, showing what was necessary in the way of arterial roads, bridges, and open spaces as a guide for the control of future development. This would be a work of great magnitude, as Greater London included an area of about 2,000 square miles, extending on the north as far as Harpenden and Welwyn; on the east as far as Billericay, Wickford, and Gravesend; on the south as far as Dorking, Reigate, and Redhill; and on the west as far as Slough, Beaconsfield, and Amersham. The Greater London Committee was taking up vigorously the consideration of "ribbon development" and other matters of extreme importance in the amenities of the country side. He felt confident that in order to make regional planning effective it would be necessary to extend its provisions so as to include built-up areas, while a comprehensive scheme of town-planning for Greater London, in place of piecemeal efforts, should be of material assistance to its proper development.

BUILDINGS OF THE YEAR.—It was very pleasant to be able to refer to the number of fine buildings which had been erected by members during the past year, as these indicated not only the prosperous condition of architecture at the present time, but also the undoubted fact that never had better architectural talent been available for carrying out the various types of building required for public and social service under our complex civilisation, when so many factors such as noise, acoustics, and vibration had to be considered. Complexity of existing conditions was the kernel of the problem of the difficulties in building to-day. (The President then gave a long list of buildings of special merit erected during the past year, with the names of their architects.)

It was often unfortunate, he continued, that when new buildings had to be erected, old ones, sometimes of great merit, should have to be demolished, and in the case of Dorchester House, in Park-lane, it caused a pang of regret that this fine, stately mansion, designed by Lewis Vulliamy and adorned by that great sculptor Alfred Stevens, should have been taken from us. It was, however, the inevitable result of expansion that when a building had ceased to serve a useful purpose it was always liable to be superseded.

London Bridges.

In reviewing the building proposals of the past year, bridges loomed largely in our minds; first because the old ones would often no longer stand the strain of modern traffic; and secondly because new ones were required to meet the increased flow and weight of traffic to-day. The architectural importance of the London bridges bore such an intimate relation to the development of London at the present time that he proposed to refer shortly to the projects for bridges which had been and were now under consideration, and had given rise to so much public interest.

St. Paul's Bridge, about which there had been so much intermittent discussion for the past 18 years, had now been vetoed by Parliament. It was a badly conceived project and the worst cross-river scheme ever formulated, for it would have endangered the stability of St. Paul's, and by attracting traffic to an already busy and congested centre, would have ruined the amenities of our great metropolitan Cathedral, and in the supposed interests of traffic would have defeated the very purpose for which it was designed.

Waterloo Bridge.—It was a great relief to lovers of London and of fine majestic architecture to know that Waterloo Bridge was to be strengthened and repaired and not demolished, and so would still remain as London's finest bridge. The L.C.C. were to be highly congratulated on their decision. To secure these results, it had been necessary to keep a constant and vigilant watch on the City scheme in the east and on the L.C.C. proposals in the west, lest we should have a ruined Cathedral at one end of London and a ruined bridge at the other. Both St. Paul's Cathedral and Waterloo Bridge seemed now to be anchored in safety.

Charing Cross Bridge.—The greatest architectural event of the year, however, and, indeed, one of Imperial importance, was the decision to provide a new road bridge at Charing Cross. It had been the dream of many people for many years that such a bridge should be constructed, and one could not but rejoice that this much-needed public improvement for the Metropolis would at length be taken in hand. It was of the greatest importance that the best scheme should be adopted after all suggestions had been exhaustively considered, and the final decision should be the result of consultation and agreement between all those who had a right to be heard. Among the authorities who might be presumed to be interested in the subject and to have a right to express an opinion, was the Greater London Regional Planning Committee, of which he happened to be chairman and of which Dr. Raymond Unwin, F.R.I.B.A., was the chief technical adviser. Another body was the Town Planning Institute, and yet another the important committee, convened by the R.I.B.A., known as the Thames Bridges Conference, of which Mr. Arthur Keen was the Chairman.

The official scheme which the London County Council had drawn up in collaboration with the railway company and Sir Edwin Lutyens was certain to be met with many and serious objections. It proposed a high level bridge occupying the site of the present railway bridge and reaching ground level at the Strand, where an awkward traffic circus would be formed, while at the junction of Waterloo Road and the approach road another circus was proposed. The official bridge with its approaches had, as one of its unfortunate features, a great length without any intermediate exits or entrances from the ground level, which would thus cause a great congestion of traffic at the points where it was discharged. Another bad feature was the length of main road tunnelling, with objectionable overhead viaducts; thus Belvedere-road, it had been stated, would be tunnelled for 600 feet, Waterloo-road for 420 feet, and York-road for 300 feet. He knew of no such system of unsightly tunnelled and overhead viaducts in existence in the very centre of any European capital city. The scheme also necessitated the destruction of much valuable property such as St. Martin's Vicarage and schools, the "Old Vic" theatre, Coutts's Bank, the India Store Depot and the Union Jack Club, and would, therefore, be very costly. After considering this official scheme the Greater London Regional Planning Committee passed a resolution at a meeting held on July 30, 1929, condemning the scheme for various reasons, as follows:—

"1. The chief object of a bridge at Charing Cross should be to deal with the traffic between the area south of the river and the west and north-west of London. The scheme put forward by the London County Council and Ministry of Transport, far from facilitating this traffic, distorts it in an attempt to serve the north and south traffic which would not naturally use Charing Cross Bridge.

"2. The natural flow from the bridge to the north-west will be seriously interfered with by the proposed disconnection of Charing Cross Bridge from Northumberland-avenue, Trafalgar-square and the Embankment." (The official scheme requires all Embankment traffic to go up to the Strand before it can get on to the new bridge.) "Vehicles going to Westminster and Piccadilly would not only be diverted from their natural course but forced to use the already congested centre at the Strand.

"3. The creation of a new circus at the Strand so near to the present Trafalgar-square circus will cause serious delay to traffic, besides being a costly matter owing to the demolition of valuable buildings.

"4. That as regards the characteristic views of London, including the view of St. Paul's from the Embankment and Westminster, the raising of the Bridge by means of tunnelled viaducts and underground streets above the level necessary to cross the Embankment traffic will be detrimental and will tend to destroy the view and to be out of scale with the remaining features.

"5. The existence of the overhead railway from London Bridge to Charing Cross presents the chief obstacle to the proper development of London south of the river. The removal of this obstacle probably by placing the railway underground will ultimately become necessary. Anything which would render this removal more difficult or costly is to be deprecated."

This criticism, continued the President, had also been endorsed by town-planning and other authorities. We had only to remember that simplicity was the acid test of design, and if we applied this test to the official scheme for Charing Cross Bridge, we found that its many complications were the measure of its imperfections. Of all the schemes which had been published and were worthy of consideration he would refer to two only. One was that of the late Edwin T. Hall, F.R.I.B.A., published in the R.I.B.A. Journal in December, 1916. It was a simple, straightforward plan for a low-level bridge abutting on to a wide open square, some three acres in extent, at the Victoria Embankment end and communicating directly with the Embankment and Northumberland-avenue between which and Villiers-street there would be room for fine monumental buildings, while a widened Villiers-avenue would lead to the Strand. Mr. Hall's treatment of the Surrey side consisted in joining up the Southern Station and hotel while allowing the River embankment to be continued under the station yard. The other scheme was by Messrs. Niven, Carõe and Muirhead,* and was to a certain extent similar to Mr. Hall's plan, but with improvements, such as the carrying of a bridge over the Victoria Embankment, the road being lowered at this point and allowed to pass under the bridge, thus giving additional traffic facilities. This scheme provided for the easy distribution of traffic; there were no costly and insanitary approach viaducts on either side of the river, and less property to be acquired, for it would leave Coutt's Bank, the Union Jack Club and other buildings as they were and should, it had been stated, cost some three millions less than the official scheme. The embankment roadway on the south side would also be preserved, and, if extended, would be suitable for monumental buildings on the lines of the London County Hall and St. Thomas's Hospital. It seemed to him that one of these two schemes, or variations of either of them, would have to be adopted if a successful issue was to be insured. He agreed with Mr. Arthur Keen, chairman of the Thames Bridges Conference, that taking the northern approach, it was most desirable to have a low-level bridge with approaches to Northumberland-avenue and the Victoria Embankment—that was to say, a bridge which served both banks right down to the water's edge, with the Victoria Embankment raised and depressed so as allow traffic to get on to the bridge or pass under it at will, and be easily distributed.

Portrait of Mr. Walter Tapper, P.-P.R.I.B.A.
By SIR WILLIAM ORPEN, R.A.

* Illustrated in *The Builder*, July 26, 1929.

As to the southern approach, the important thing was to enable the future development of south London from Westminster Bridge to Blackfriars to be properly carried out so as not to put the station in such a position as to block up the open space from Waterloo to the river. This could be avoided by placing the new railway station in its most suitable position adjoining Waterloo Station, and the hotel in its proper place facing the river, with an underground connecting space, like that at Piccadilly Circus, to give access from station to hotel—an arrangement which would allow the streets to run through without interruption and the development begun on the south side by the County Hall to proceed eastwards.

What we had to deal with in the next few years was essentially the greatest public improvement that had been undertaken in London since the Great Fire. It was not only the question of a new bridge; it was more even than the question of planning the approaches to the bridge on the north and the south. It was, in fact, the problem of the development of the central portion of the Surrey side.

We should make or mar that development for all time by the decision which we took on the bridge. The interest of the general public had been keenly directed towards the matter, and all those who cared for the welfare of London were greatly indebted to those responsible organs of the Press which had done so much to voice opinion on the subject and to urge the public authorities in the right direction. The magnitude of the scheme and the complexities it involved in the matter of town planning—on both sides of the river—rendered the problem of this bridge and its necessary approaches very difficult to visualise even by experts. He was therefore strongly of opinion that, before anything further was done, a scale model of the whole scheme, showing the approaches on both sides of the river, should be made, and that a full discussion should take place on it between H.M. Government, the L.C.C., the Ministry of Transport, the Greater London Regional Planning Committee, the Thames Bridges Conference and the Royal Fine Art Commission. Even from the point of view of the amount of money involved, which was £12,000,000 and upwards, it was evident that mature consideration should be given to the problem in order to ensure that the very best scheme should be selected, and he awaited with confidence the decision of the various authorities, including His Majesty's Government, who had agreed to provide 75 per cent. of the cost. Criticism was not only easy and inevitable, but, indeed, absolutely essential, and of enormous value in considering an undertaking of such exceptional importance. Whatever they might think of the scheme itself, in its present tentative form, they could not but remember that it was largely owing to the public spirit and courage of the London County Council, generously supported by the Minister of Transport and H.M. Government, that this gigantic undertaking ever came into the realm of practical affairs. They could not blame either Minister or Council for our English habit of doing our improvements piecemeal without first making a general plan.

It was wonderful to realise that at last we were in sight of the actual accomplishment of this great improvement, and that the present railway monstrosity would be removed for ever from our midst. He hoped that in the public interest, the best advice would be sought for and followed and that, if necessary, there would be a public competition for the complete scheme. The bridge and its approaches, to occupy one of the finest sites in London, should be a great and magnificent conception, worthy of its central position in the capital of the Empire.

Activities of the R.I.B.A.

Under this heading the President referred to a number of matters of interest to architects. He thought, he said, that much good could be done by architects becoming members of town councils, as they could thus help to direct movements beneficial to their districts. He knew full well that much time was wasted on committees, and it was not congenial work, but it was much more effective than writing letters to the newspapers after a wrong decision had been made. The work of the Society for the Protection of Ancient Buildings had always depended greatly upon the services of enthusiastic members of the profession. The establishment of the Council for the Preservation of Rural England was in the main the work of members and honorary members of the R.I.B.A., such as the Earl of Crawford and Balcarres, Mr. E. Guy Dawber, and Professor Patrick Abercrombie, and that body freely acknowledged the debt that it owed to the profession.

There had been an important development recently in the appointment of Advisory Panels consisting largely of architects appointed by the Allied Societies to give free help and advice in all matters affecting the amenities of the country-side. The work of these panels was not yet sufficiently known, but when the community was fully aware of their work we should hope to see great results from a proper use of them. Architects in their own neighbourhood held an unofficial watching brief for the protection of England's architectural monuments—large and small. As architects, who had the trained eye for beauty of form, they must regard themselves as the trustees for the countless fine buildings which were our heritage from past ages. England was throughout its length and breadth a veritable treasure house of architectural gems, which were found alike in little villages and in great towns—buildings which had not only their own intrinsic worth, but also their historical associations which must be preserved by those of us who understood their value.

In connection with Greater London he would like to see more interest in its development by wealthy citizens. When he thought of Nottingham, Leeds, Bristol, Birmingham, Liverpool and Manchester, and realised what their citizens had done by giving vast sums for general improvements to these towns, he thought we were justified in hoping that more and more of our wealthier citizens, not only of the City of London but also of Greater London, would take a wider view of their responsibilities in the architectural improvement and general amenities of this vast area of 2,000 square miles. The importance of environment was the new note which had been sounded to-day in connection with every public undertaking, whether national or local, and both in town and country we must preserve beauty and we must provide beauty in all our surroundings. At last it was recognised that beauty of environment was an essential factor in raising the status and improving the health of our people.

As architecture came striding down the ages we could discern the progressive spirit which animated her, for she had always developed a new phase in each period to meet new requirements, and a clear indication of social progress was to be seen in the progressive adaptation of architecture to each successive period in human history. In ancient days the demand on her was chiefly for temples, tombs and theatres and it had been said that Athenians would seem to have been content to live in hovels if only they could gaze on the glory of the temple of their goddess on the Acropolis. The outstanding buildings in old Rome were the Forum and Basilica for business and communal life. Then in England came castles for defence, round which the common people clustered. The Mediæval masons built great cathedrals which became centres for every sort of civic life, with parish churches for prayer and worship and memorials of the dead. In Renaissance times great architects designed great country houses and mansions for the nobility. Then came the Queen Anne and Georgian houses for the gentry in the towns. But to-day was the people's day, the day of communal organisation, as at Letchworth and Golders Green, of town planning in new districts and of building schemes round every town to supply fit and proper homes for the people and their own social needs. Here, then, were the latest demands made upon architecture: here was the new opportunity for architects of to-day. They were called upon to design not only all the variety of buildings for social service and recreation, but also to provide a new and more enlightened people with pleasing homes in pleasant environment. The R.I.B.A. had for the past 95 years acted up to the motto of the Royal Institute, *Usui Civium Decori Urbium*, and their members had striven to design buildings suitable to existing requirements, and to endow their work with a permanent artistic value so as to enrich and beautify not England alone, but all parts of the world, for members, forming a great confederation of British architects, carried out their work in every corner of the British Empire.

Discussion.

Lord Monk Bretton, chairman of the London County Council, proposing a vote of thanks to the President, said Sir Banister had given some meed of praise to the L.C.C. in connection with the taking down of Hungerford Bridge, but he seemed to fear their constructive activities. He (the speaker) was merely the registrar of the decisions of the Council, and had no more right to oppose the policy of the L.C.C. than the Speaker of the House of Commons had to interfere with the policy of the Government. He could only say that everybody was bound to note the opinions of Sir Banister, and that they would receive the attention which their intrinsic value deserved.

Sir William Llewellyn, P.R.A., seconding the motion, having paid a tribute to the prestige of the Institute, said he agreed with the President that architectural tradition could not be ignored, and those who did ignore it would discover their mistake.

Mr. Arthur Keen, supporting the motion, expressed his great pleasure at seeing in the presidential chair his old friend Sir Banister Fletcher, and recalled that years ago they had worked side by side as assistants in the same office. There were a great many views, he continued, on Charing Cross Bridge, but there was no difference of opinion on the need to take advantage of the opportunity presented to open up the south side of London. The speaker then quoted with approval Mr. R. Dann (Director of Town Planning, Madras), who had recently said: "The south bank as it exists is probably the grossest example in the whole world of the economic and æsthetic misuse of one of its finest building sites. No other capital city of an important state would put up with such conditions."* The London County Council, he continued, had set its own County Hall on the side of the river, and now we had to secure that the lead set up should be followed with a fine succession of buildings right along to Blackfriars, and ultimately to London Bridge itself. The last word had not been said, and he hoped there would be an opportunity for all interested parties to meet so that the matter could be properly discussed.

The vote of thanks having been put to the meeting and carried with acclamation,

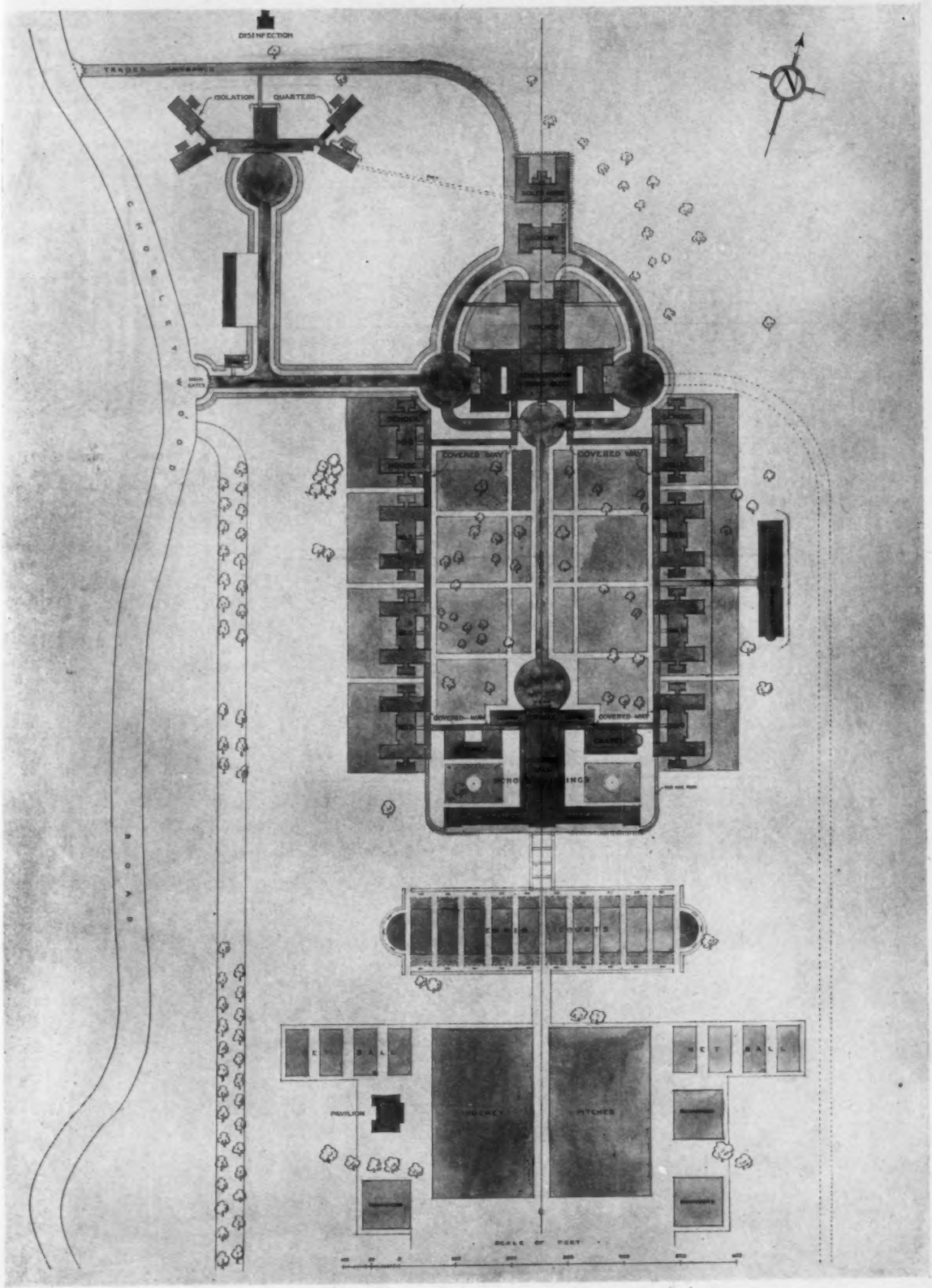
The President, in reply, said he was confident that the present scheme would never pass the House of Commons. The President then unveiled the portrait of Mr. Walter Tapper, painted by Sir William Orpen, R.A., for the Institute gallery, and paid a tribute to Mr. Tapper's devoted service to the Institute and the allied societies.

Sir William Orpen, called upon to speak, made a few brief remarks, and Mr. Tapper replied.

The Royal Gold Medal.

The President then announced that the Council propose to submit to the King the name of Dr. Percy Scott Worthington, as a fit recipient of the Royal Gold Medal for the year 1930.

* *Vide The Builder*, October 11, 1929.



The Royal Masonic Institution for Girls, Rickmansworth: Layout of Competition Design for Proposed School.

By SIR BANISTER FLETCHER, P.R.I.B.A.

ILLUSTRATIONS

PLATES

Bradford Improvement Scheme Competition.

An article on this competition is given on page 786. We illustrate this week the first and second premiated designs, by Mr. C. Cowles-Voysey, F.R.I.B.A., and Messrs. Arthur Bailey and D. H. McMorran, respectively.

Royal Masonic Institution for Girls; Proposed School, Rickmansworth.

The design which we illustrate was submitted in this competition by Sir Banister Fletcher, P.R.I.B.A., F.S.A. The axial line of the scheme lies right through the portico of the mansion at present on the site, and so preserves and incorporates the existing trees in the great quadrangle, which is one of the special features of the design. The great quadrangle is surrounded by the administration block, the school buildings with assembly hall, science block and chapel, and the eight school houses, giving plenty of air space and sunlight to all parts, and a scholastic character to the design in keeping with its purpose. The eight school houses on the east and west sides of the quadrangle are on nearly level ground with a slight fall in the connecting covered ways which link up all portions of the school. The buildings have been designed in a free Georgian style and there has been no attempt at ornamentation, for the size of the buildings comprising the scheme is sufficient to ensure dignity and an effective result due to the symmetrical plan and grouping round the great quadrangle.

The first and second premiated designs in the competition were illustrated in our issue for November 23, 1928, the authors of these being respectively Messrs. Denman and Son and Messrs. Bradshaw Gass and Hope.

Bethnal Green Public Baths and Wash-houses.

This new building, which was opened by the Duke and Duchess of York last Tuesday, adjoins the town hall and has a frontage to Old Ford-road of 170 ft., the area of the site being 38,500 super feet. The principal facade is in Old Ford-road, designed on Georgian lines and built with red Accrington facing bricks and Portland stone plinth and cornice. The framework of the building, the plunge baths, floors, roofs, staircases, columns, etc., are in reinforced concrete. The entrance hall floor and walls are faced with terrazzo tiling, with plaster planelling above. The balcony landing is also tiled. The hall is lighted by a double-glazed reinforced concrete ribbed dome. Situated between the entrance hall and main bath hall is a crush hall or foyer, the walls of which are panelled in teak. The large bath hall is 122 ft. by 66 ft., and has been designed for use as a swimming bath during the summer season and a public hall in winter. The swimming bath has a water area of 100 ft. by 40 ft., with a varying depth from 3 ft. 6 in. to 8 ft. 6 in. in centre of deep end. Ample shower and foot baths are provided. There are 63 teak dressing boxes, which are of the collapsible type and when folded back against the walls form a panelled dado. Arrangements have been made for covering over the swimming bath during the winter season with a specially constructed floor of hard maple, laid in sections on springs and trestles, braced and bolted together. This will then form the public hall, with seating accommodation for 1,771 persons (1,481 on the ground floor and 290 in the gallery).

The small swimming bath is 75 ft. in length by 31 ft. in width, and the water depth varies from 3 ft. 6 in. at the shallow end to 7 ft. in the centre at deep end. There are 50 fixed dressing boxes arranged along both sides. The public washhouses, with waiting-room, cloak-room and offices, are situated on the west side and have been equipped for both hand and machine washing. For those who prefer hand-washing, the wash stall laundry has been equipped with washing compartments, each consisting of washing, boiling and rinsing troughs, electrically driven hydro extractors and drying horses. The mangling and ironing room is provided with five mangles, driven from one line shaft by electric motor, and ten electric hand-irons. On the ground floor there are 24 women's second-class slipper baths. The first floor includes 18 women's first-class slipper baths, 13 men's first-class slipper baths and 35 men's second-class slipper baths.

The Turkish, vapour and electric baths are in the basement, and include lounge and waiting-room, frigidarium, 10 lounges, 12 dressing boxes, tepidarium (first hot room), calidarium (second hot room), laconicum (third hot room), a plunge bath and shampoo room with three massage slabs and needle and shower-bath. The vapour bath accommodation includes 12 dressing boxes, two vapour rooms, and showers with needle spray. The electric bathroom is provided with electric lounge and chair baths, slipper, foot and needle baths. The establishment laundry is in the west side of the basement, which also provides for a large chair store, electric battery rooms for the secondary system of lighting to the licensed portion of the building, heater and fan rooms and fresh-air intake shaft for the Plenum system of heating and ventilation of the large hall. The central plant for both heating and hot water supply is situated in the main heater room in the basement. It consists of six calorifiers. Careful attention has been given to securing the continuous filtration of the swimming baths water and the maintenance of such water in a wholesome condition, the filter room containing six pressure filters, together with heaters, aerators, strainers, air compressor and chlorinating apparatus. The building throughout is warmed by hot water radiators, and the circulation of the hot water is accelerated by pumps. For ventilating the swimming baths a double system of exhaust ventilating ducts is provided, one system is connected up to automatic roof ventilators and the other to electric exhaust fans. A separate steam coil battery and centrifugal fan is installed for delivering air at a high temperature into the hot rooms of the Turkish bath, and a system of pipes is installed, delivering steam into the vapour baths. The boiler house is separated on the ground floor from the main building, but is connected in the basement. Three Lancashire boilers, 27 ft. long by 7 ft. 6 in. diameter, are installed, provided with oil-burning equipment. The chimney shaft is 100 ft. high, and built with Southwater red engineering bricks. The electrical installation consists of lighting, power, heating and automatic telephones. The water supply service to the washhouses is passed through a water softener. The cold water for supplying the whole of the building is stored in two large concrete tanks having a total capacity of 40,000 gallons. There is a separate connection to each of these tanks, in addition to a supply pumped from an artesian well.

The following contractors have carried out work as under:—F. R. Hipperson and Son, superstructure, also the whole of the joinery, including teak and oak, which was carried out at the contractors' joinery works, Trowse, Norwich; Bovis, Ltd., foundations; T. Clarke and Co., Ltd., electrical installation; T. Danks and Co. (Oldbury), Ltd., boilers; Fretwell Heating Co., heating and ventilating installation; P. C. Richardson and Co. (Middlesbrough), Ltd., chimney shaft.

Mr. Arthur Ernest Darby, A.M.Inst.C.E., A.M.Inst.M.E., the Borough Engineer and Surveyor, has acted as architect, and the following have acted as the Council's consultant engineers:—Mr. H. J. Deane, B.E., M.Inst.C.E. (concrete and reinforced concrete), Mr. Harold W. Couzens, M.Inst.E.E. (electrical installation), Mr. L. J. Overton, M.Inst.H.V.E. (heating and ventilating installation). Mr. J. T. Bullock, the Council's general building works foreman, acted as clerk of the works during the erection of the superstructure. A list of sub-contractors associated in the work will be found on page 800.

The Savoy Theatre.

In connection with this work, illustrated in our last issue, Messrs. Easton & Robertson, FF.R.I.B.A., write to say that they were the architects for the new steel theatre front to Savoy-court, the shelters, the archway, the courtyard treatment, the shelters to Somerset-street and Carting-lane, and all the external electric signs and lighting. We regret, also, that the work was wrongly attributed to Mr. Sydney Tugwell, F.R.I.B.A. The architect is Mr. Frank A. Tugwell, A.R.I.B.A., of Windsor House, Victoria-street, Westminster.

In the Lift and Engineering, Ltd.'s, advertisement appearing on page lxxxiii of last week's issue, a small portion of the issue gave the name of the architect as "Sydney Tugwell, Esq." As explained above, this should have read "Frank A. Tugwell, Esq." In the greater number of copies the name was correctly printed.

"THE BUILDER" DEBATE

XXIII.—THE PUBLIC TASTE.

SIR,—Whether or not one can subscribe to the literal text of "Positive's" motion depends very largely upon what is meant by popular taste. "Positive" makes this sufficiently clear to make it easy to join issue with him. Some of the examples he chooses by way of illustration are most unhappily selected for his argument. To me, and to a good many others, the amount of discussion and argument which such matters as the Bridges, the Haig statue, and the Sacristy have aroused, suggest that people of to-day do care about artistic matters, and that their interest is widespread. To dub an age which is so careful of its steps "tasteless" is not only an abuse of language but an abuse of the age.

It is always difficult to judge fairly one's own times, and history is our sole aid to judgment. If we read back through not distant history we can find many instances where great opportunity has presented itself to an age, only for it to be cast aside and missed. Take an example such as the Fire of London. We know that Wren prepared a comprehensive plan of London to make it a fine city over the ashes of the old, and ignoring the haphazard boundaries which the fire had erased. Yet the opportunity was missed though none call the seventeenth and eighteenth centuries "tasteless" ones on this account.

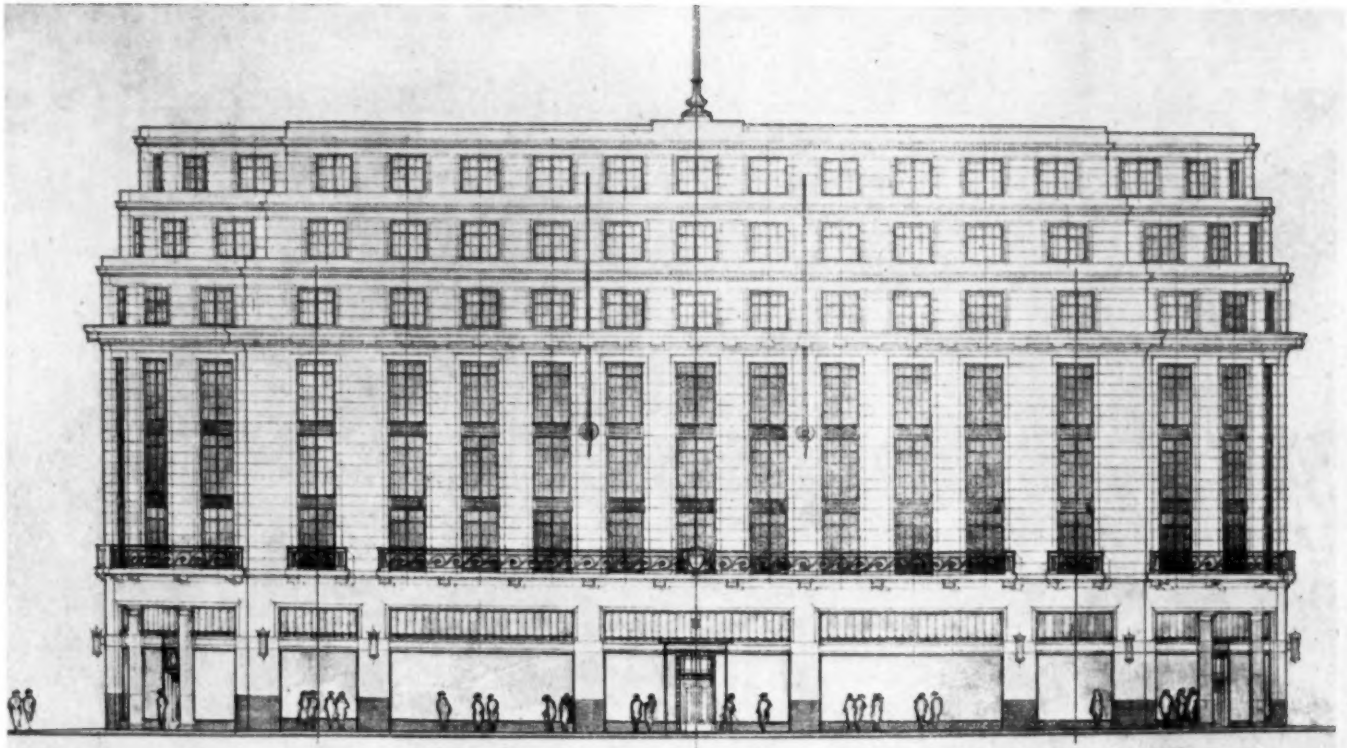
I will not express an opinion about the Haig statue, but I must welcome any sign that the age is not content to accept just anything which our artists give us. It is at least better than the Victorian complacency which tolerated the hundred pair of bronze and stone trousers which cumber our squares and street corners. Public taste is not infallible, but a first essential is honest criticism.

Public taste has created a body of opinion intent on preserving Westminster Abbey as a complete work of art. It has created a parallel body of opinion intent on giving this age its chance to contribute to the historical record represented by the Abbey buildings. Both schools of thought are evidences of public taste, not at all neutralising their effect by a difference of opinion. Art has always been a centre for controversy, and has thriven on argument.

I have no liking for inoculating the public with doses of dogma from the lecture platform or in the news column. Such means are more likely to create cant than taste. Taste is an instinct more than anything else, and the taste which is "educated" is, as often as not, a sign of mere snobbery. The only legitimate way to educate public taste is to set before the public the best that artists can do. When this is done it is appreciated. When it is not done, people throw tar and feathers; or if more statically constituted write to the papers indignantly, or otherwise do exactly what the offending artist desires most, *i.e.*, advertise him.

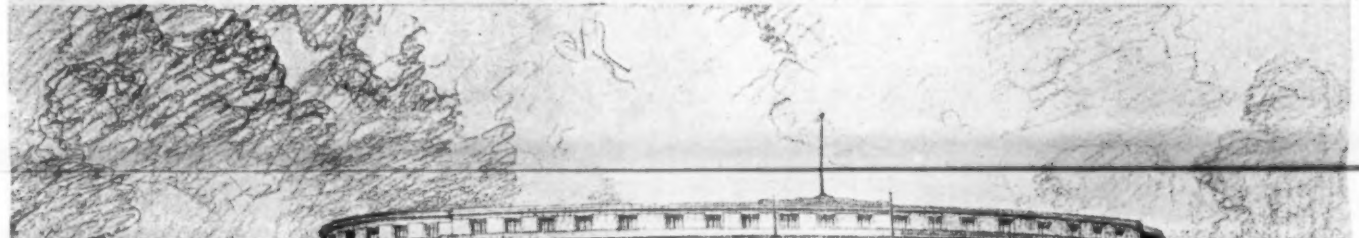
Is it the approach of autumn fogs that has brought about this mental depression in "Positive?" I beg of him to give his fellow beings more credit for intelligence. It would even make him more intelligent.

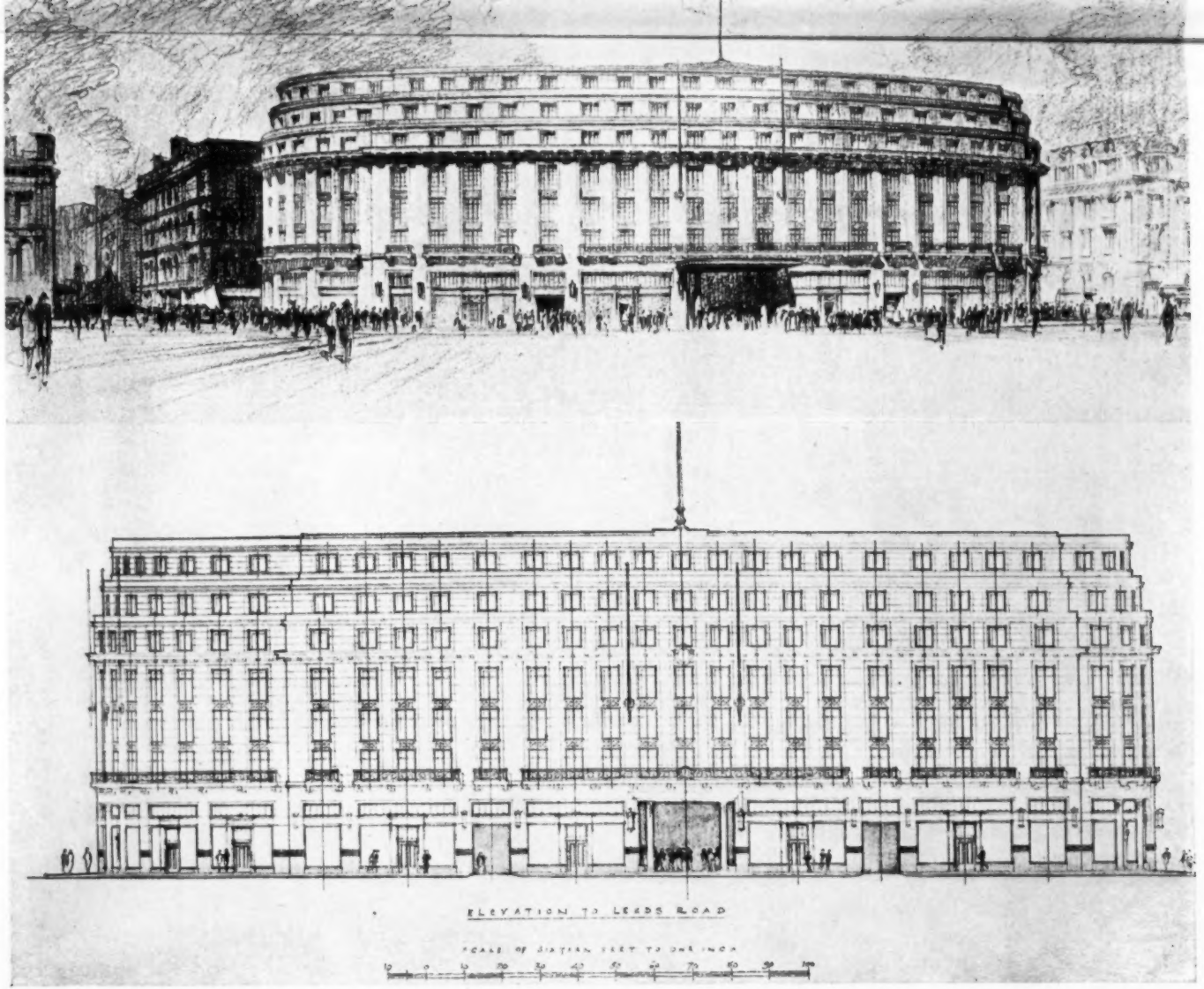
X. Y.



ELEVATION TO BANK STREET.

SCALE OF FEET.





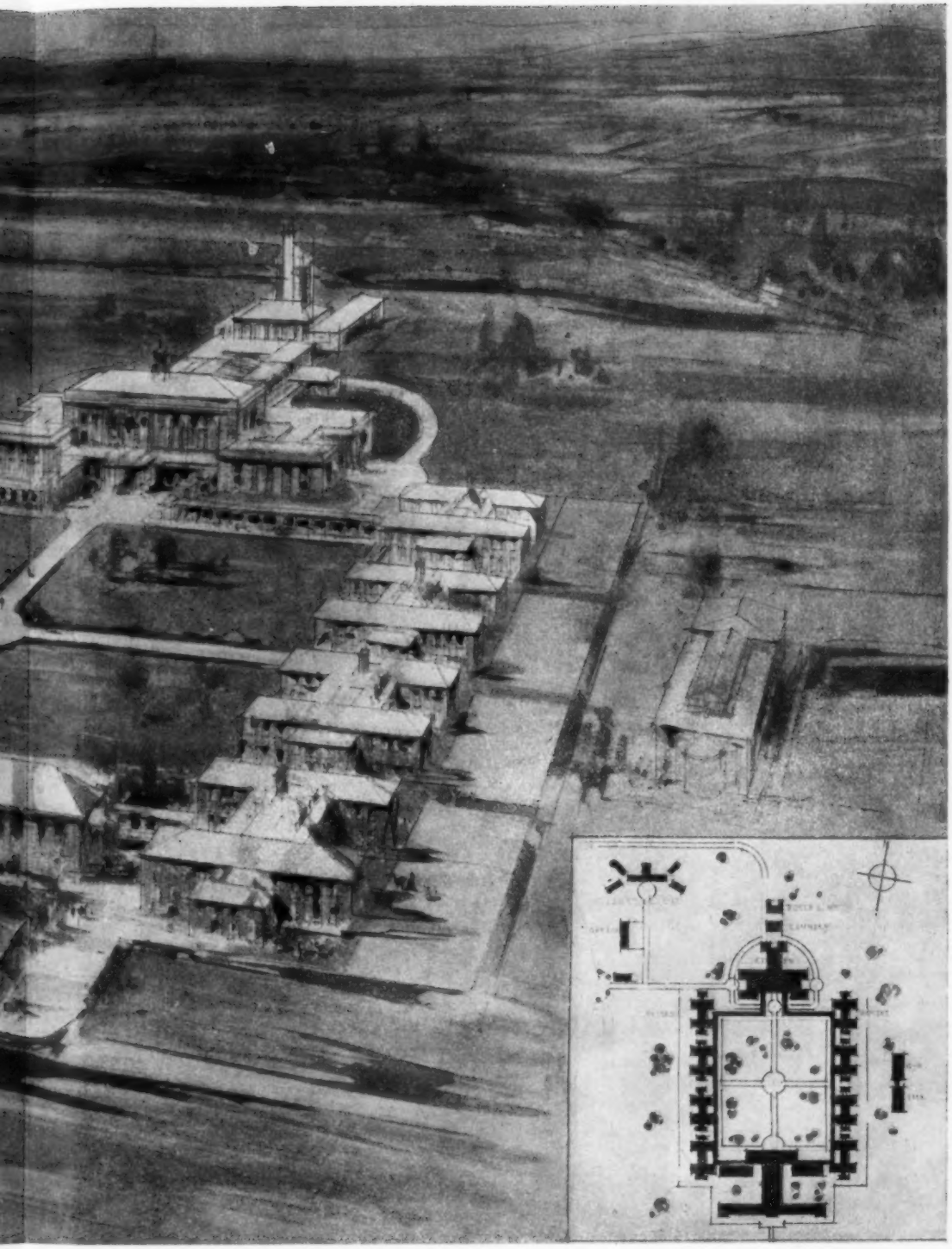
Bradford Improvement Scheme Competition : First Premiated Design.

Mr. C. Cowles-Voysey, F.R.I.B.A., Architect.

R.A. Exhibition, 1929.

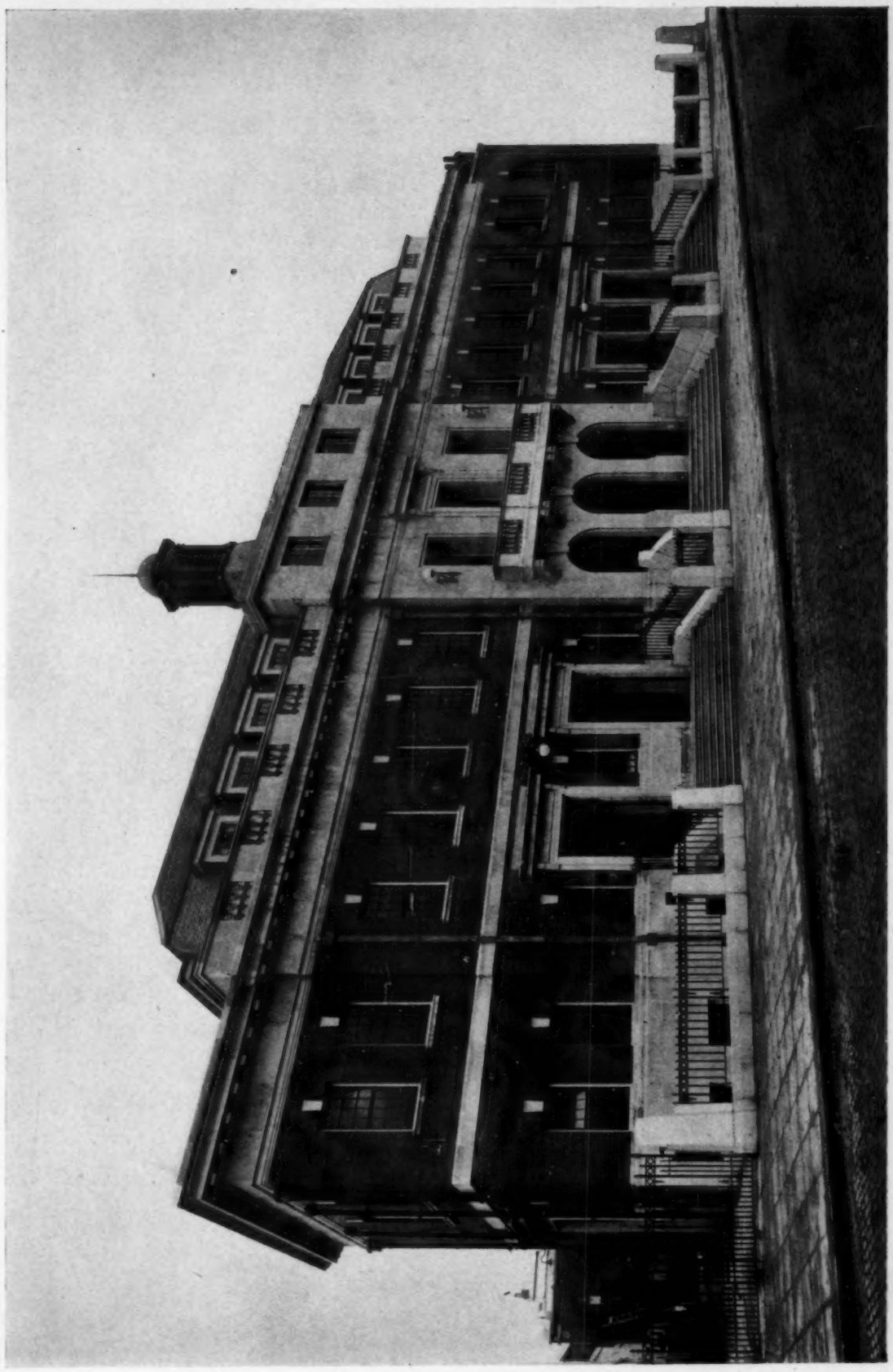
The Royal Masonic Institution for Girls, Rickmansworth:

By Sir Banister Fletcher, P



nansworth: **Competition Design for Proposed School.**

Fletcher, P.R.I.B.A.



Bethnal Green Public Baths and Wash-houses: Frontage to Old Ford Road.

Mr. Arthur Ernest Darby, A.M.Inst.C.E., Borough Engineer and Surveyor.

Bethnal Green Public Baths and Wash-houses : Small Swimming Bath.

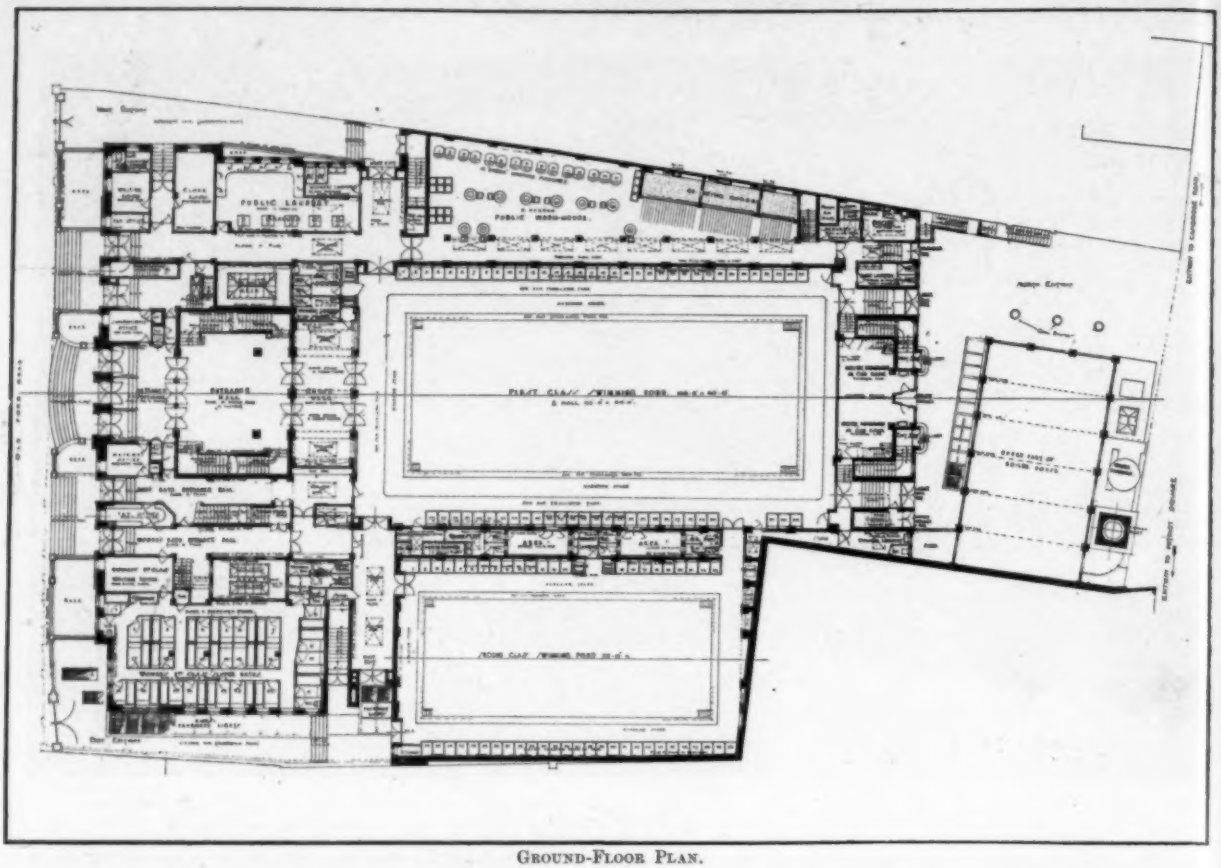
MR. ARTHUR ERNEST DARBY, A.M.Inst.C.E., Borough Engineer and Surveyor.

Large Hall.

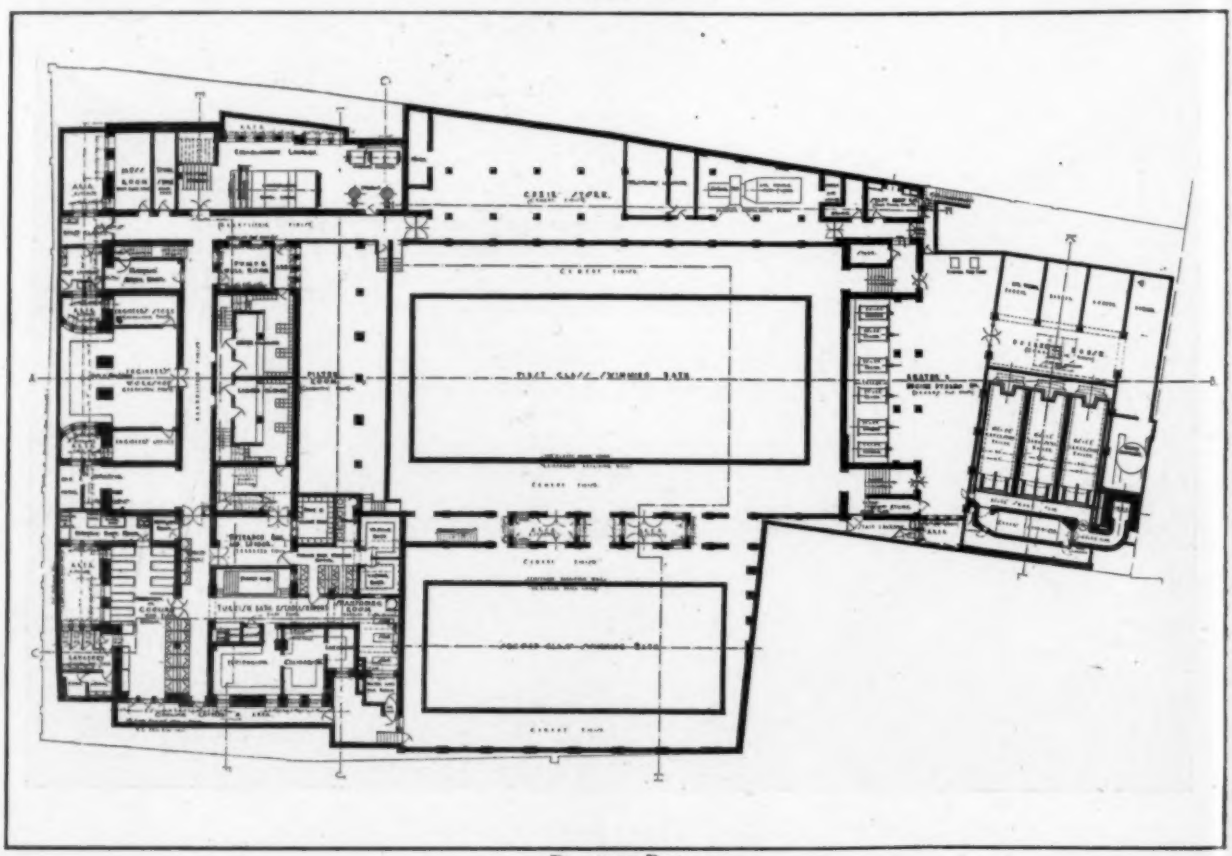
Crush Hall.

Bethnal Green Public Baths and Wash-houses.

Mr. Arthur Ernest Darby, A.M.Inst.C.E., Borough Engineer and Surveyor.



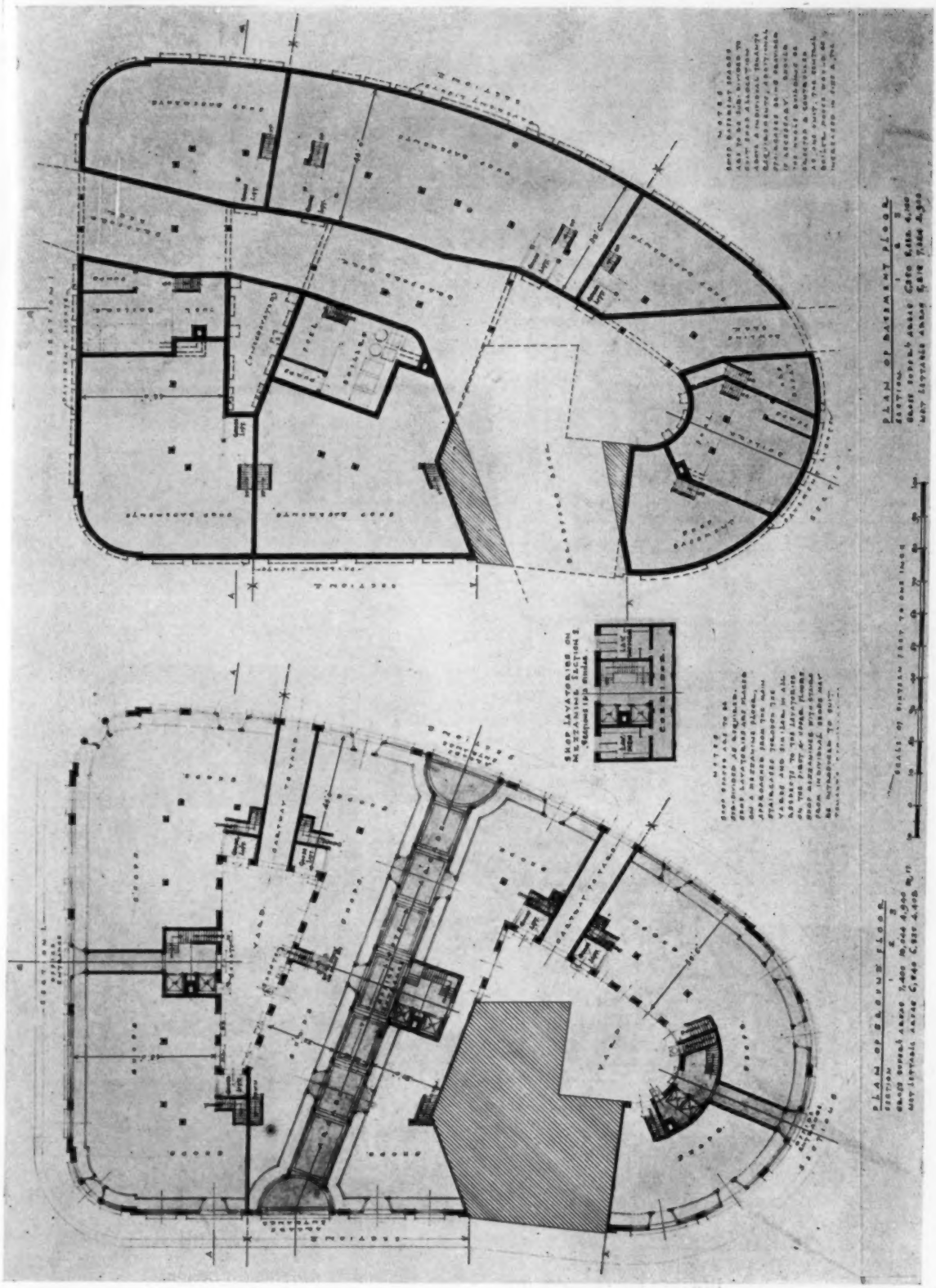
GROUND-FLOOR PLAN.



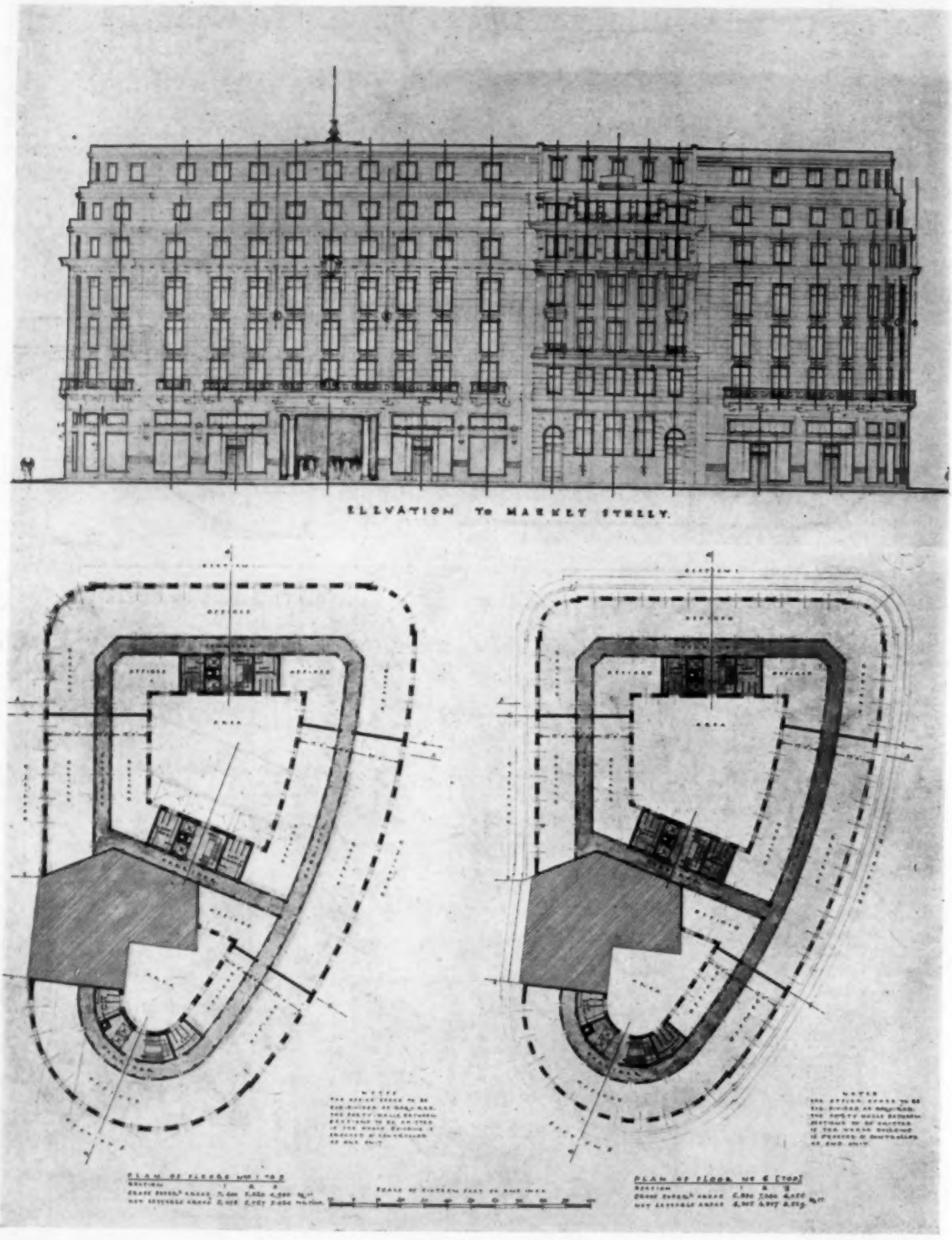
BASEMENT PLAN.

Bethnal Green Public Baths and Wash-houses.

MR. ARTHUR ERNEST DARBY, A.M.Inst.C.E., Borough Engineer and Surveyor.

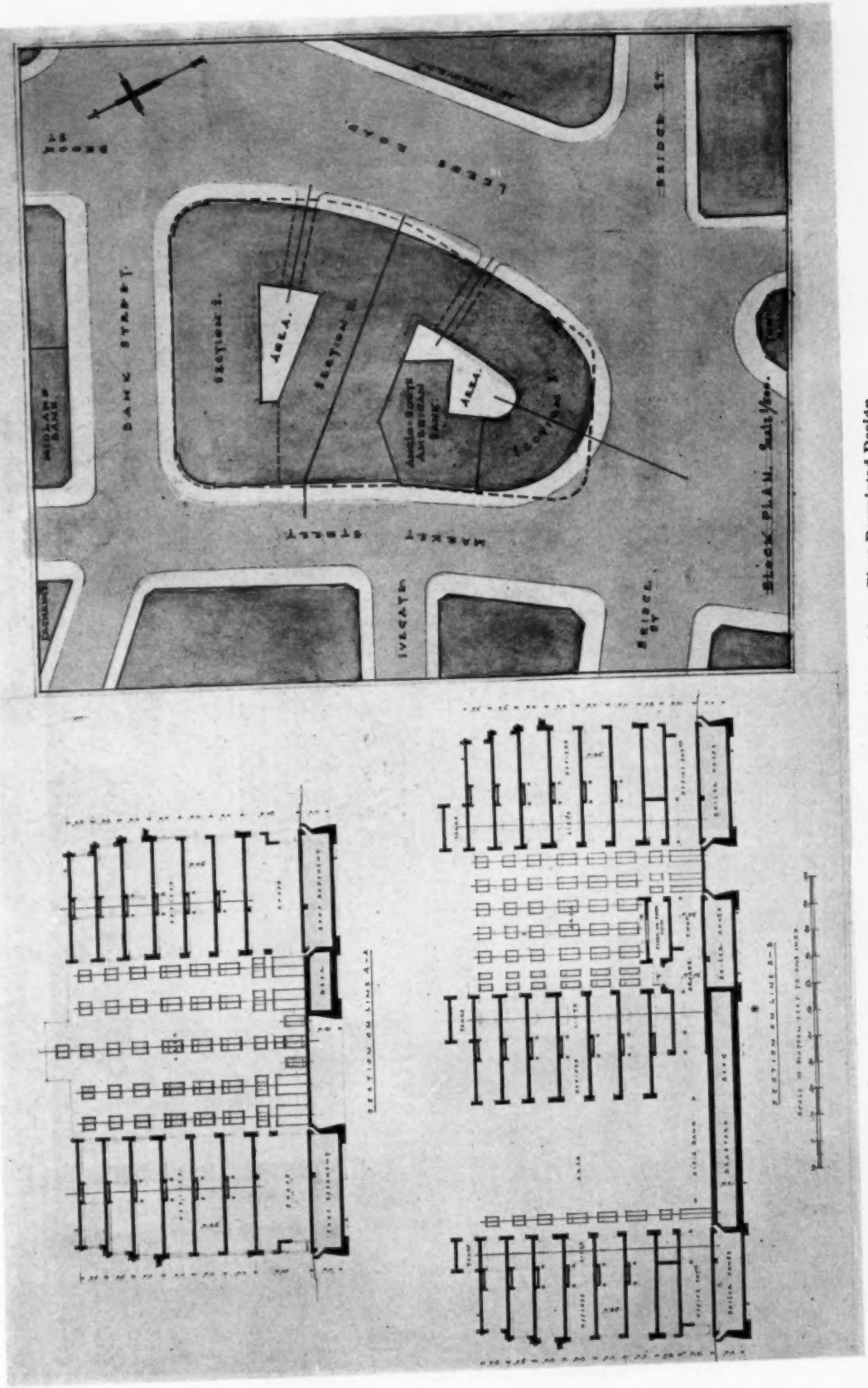


Bradford Improvement Scheme Competition : First Premiated Design.
Mr. C. Cowles-Voysey, F.R.I.B.A., Architect.



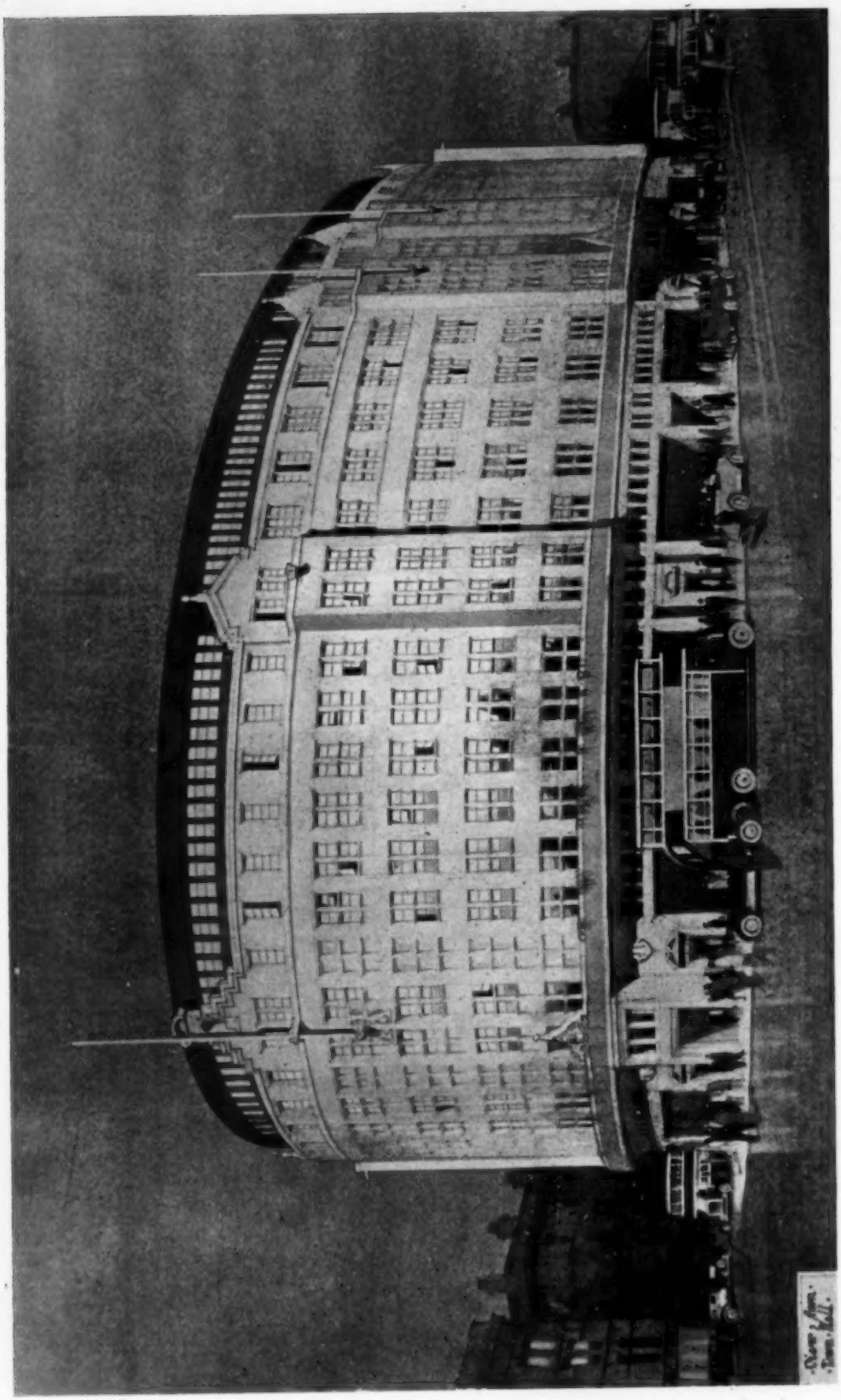
Bradford Improvement Scheme Competition : First Premiated Design.

Mr. C. Cowles-Voysey, F.R.I.B.A., Architect.



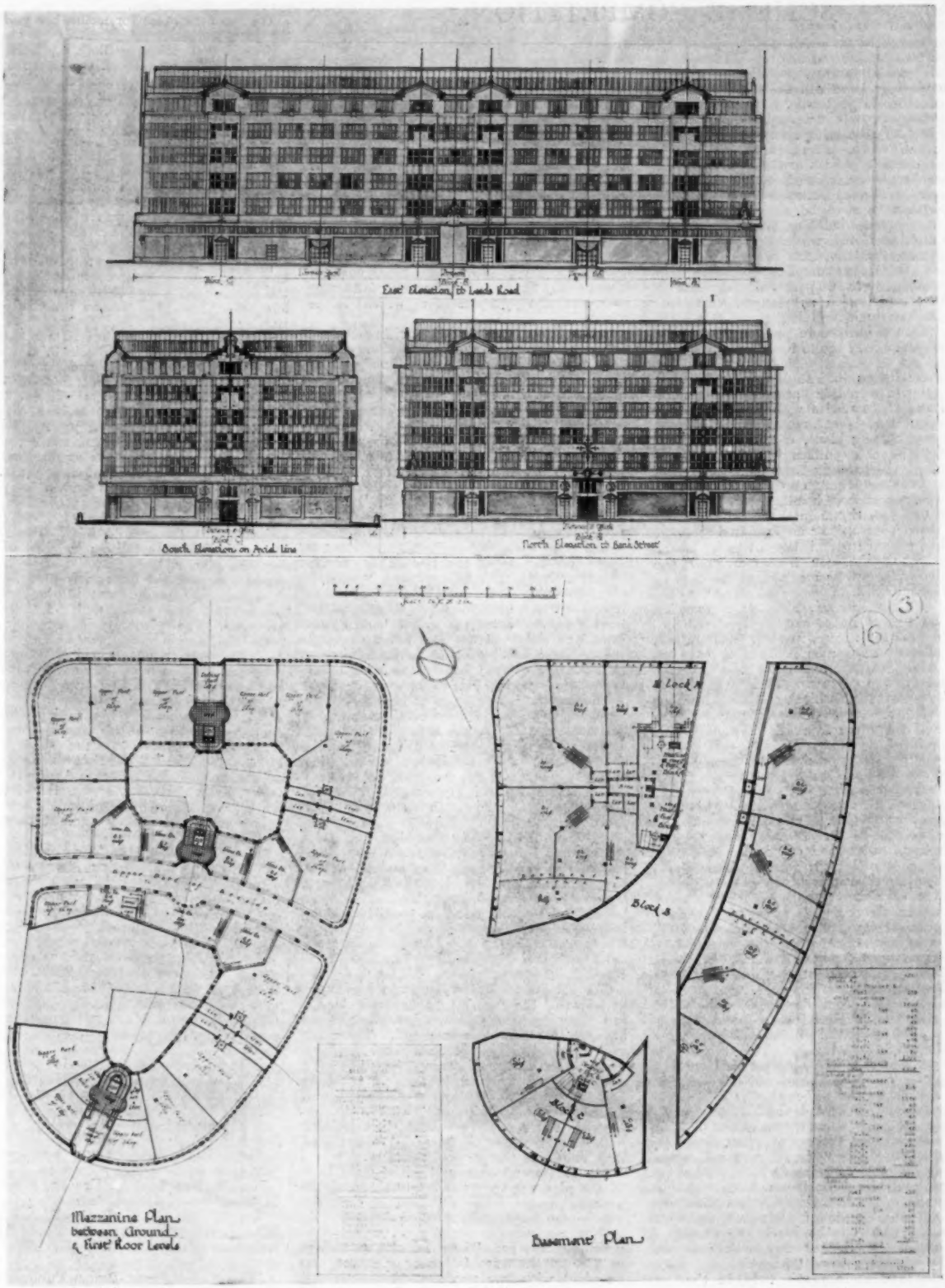
Bradford Improvement Scheme Competition: First Premiated Design.

MR. C. COWLES-VOYSEY, F.R.I.B.A., Architect.



Bradford Improvement Scheme Competition: Second Premiated Design.

By Messrs. Arthur Bailey and D. H. McMorran.



Bradford Improvement Scheme Competition: Second Premiated Design.

By Messrs. Arthur Bailey and D. H. McMorran.

BRADFORD CENTRAL AREA IMPROVEMENT SCHEME COMPETITION.

THIS competition, which was promoted by the Corporation of the city of Bradford, is of quite special interest as it gives a lead which we may hope will be followed in the case of other large towns. The purpose of the promoters was to acquire plans and elevations for rebuilding an important island site in the central area of the city. It is the intention of the Corporation that the scheme should be carried out either as a whole or in three sections. Each of these sub-divisions was to be so schemed as to form a complete building, both as regards plans and elevations, while at the same time these three sub-divisions were to be so planned that the completed building (of which they were a part) should form a dignified composition as regards the elevations and a single building as regards planning. This applies more particularly to the upper floors which are to be let out as offices, etc.

The conditions indicated that the ground floor should provide accommodation for shops and that arcades were not prohibited, while, in the basement, storage space and the necessary heating plant, etc., would be provided. The chief difficulties were the retention of the existing façade of the Anglo-South American Bank on the Market-street frontage, together with an existing yard and access to same, the maintenance of the existing "beck courses," or underground streams, in the basement, and the irregular shape of the whole site. On the other hand, the local building laws gave greater freedom in some respects than would have been the case, say, in London, and no restrictions such as ancient lights had to be considered.

The conditions were, in fact, well drafted, and allowed reasonable latitude to competitors while clearly indicating the essential features in the programme. It was also to be deduced that this block of buildings, when completed, would set a new standard for the whole of the street fronts in the central area of Bradford.

These points have evidently been appreciated by most of the competing architects, who submitted some 61 sets of drawings. The task of the assessors must have been one of unusual difficulty. From an inspection of the drawings we feel that there will be no criticism of the award of the first premium to Mr. Cowles-Voysey, whose scheme shows excellent and direct planning—in which every detail (to which we shall refer later) seems to have been considered—allied to a straightforward and dignified set of elevations.

The award of the second premium to Messrs. Arthur Bailey and D. H. McMorran is evidently based on the excellent plan, which has considerable resemblance to the winning set; a coincidence which is doubtless due to the same cause—the power to grasp the essential factors in a given problem.

With regard to the set awarded the third premium, by Mr. T. Harold Hughes, we can appreciate the difficulty of the assessors in making their final decision; here the deciding factor was evidently the interesting attempt of the author to incorporate the existing elevation of the Anglo-South American Bank in the new façade to Market-street.

The conditions clearly emphasised the importance of the elevations and the incorporation of the façade of the building which already exists on the Market-street side of the site in the scheme. But in the case both of the winning set and that which was placed second (and more particularly in the case of the latter), this condition was not very strictly observed. It therefore seems just a little illogical to award the third place to a design in which the strict interpretation of the clause with regard to elevational treatment is the chief merit.

All three premiated designs are well illustrated by fine perspective views which were prepared at the request of the promoters after the award had been made. Of these, first place must be given to an accurate and beautifully rendered black chalk drawing of the winning design, which should be very helpful to the citizens of Bradford when they visit the public exhibition of the designs to see what the new building will look like.

It is always an agreeable task to have to congratulate the assessors on the result of their labours, the promoters on the success of their search for the best architectural solution of a problem, and the architect who is the author of it; and in this case there can be no doubt that the award is for a scheme which will provide Bradford with an exceptionally fine building which faithfully interprets the purpose for which it is intended.

Having thus summarised our impressions it may be opportune to refer to some of the main points in the designs already mentioned, and those specially commended by the assessors.

No. 9 (first premium).—The main features in plan are: (1) the semi-circular treatment of the southern end of the block, by which a portion of the site adjoining Market-street is given up, so that the elevation facing the town hall is rendered symmetrical; (2) the central arcade which runs through the site from Market-street to Leeds-road (though incidentally the entrance to this from Market-street is at an awkward angle and is one of the few faults in the design); (3) the provision of two "yards" with direct access from Leeds-road, equidistant on each side from the arcade, which provide service entrances to the back of all shops and access to the coal shoots supplying the three heating plants in the basement. The shops are well planned, and in most cases have goods lifts to storage area in basement.

The office accommodation on the five upper floors is planned round two large internal courts so that an equal depth of 20 ft. is available on external façades, while those facing the court at the north or Bank-street end of the site (Block 1) are 15 ft. in depth. Those facing on the south court are 10 ft. 6 in. deep.

The entrances to the office blocks are well placed, but have rather long corridors leading from the street to stairs and lifts. On the upper floors the lavatories are well placed and adequately lighted. The net letting area (as indicated on plans) per floor is: 1st to 5th floors—Block 1, 5,475 f.s.; Block 2, 5,767; Block 3, 3,424; sixth floor (which is set back)—Block 1, 4,305 f.s.; Block 2, 4,807 f.s.; Block 3, 2,589 f.s.

The elevations follow the main horizontal divisions of the existing Anglo-South American Bank in Market-street, but there is no attempt to repeat this in detail. There are no "trimmings" or architectural features except some rather discordant flagstaffs; the proportion of voids and solids in windows and openings has been carefully studied, and the whole composition well suggests an important commercial building. The setting back of the upper floors and the flat roof give emphasis where most effective.

No. 16 (second premium).—The main lines of the plan are very similar to those of the winning design. The southern end of the site is set back on the Market-street side and is semi-circular in plan as in the first premiated design. There is also a central arcade (in this case following a curved line on plan) with two yards at the north and south ends of the site, entered from Leeds-road, giving service access to shops and heating chambers as in the winning set. The elevations are somewhat lacking in breadth and scale; they are a curious blend of inspiration derived from mediæval and early Renaissance sources. There is no apparent attempt to work in the Anglo-South American Bank building and the roof story is unhappy. It is curious to note that flagstaffs very similar to those in the winning design appear on the façades.

The net floor areas for letting are given on the plans as under:—

Ground floor shops:—Block A, 7,628 f.s.; Block B, 8,420 f.s.; Block C, 4,387 f.s.

1st to 5th floors:—Block A, 6,717 f.s.; Block B, 6,808 f.s.; Block C, 4,484 f.s.

6th floor:—Block A, 5,772 f.s.; Block B, 6,178 f.s.; Block C, 3,854 f.s.

No. 48 (third premium).—The elevations, especially that facing Market-street, have gained this set a place, as the plan is complicated at ground level with three arcades meeting in an awkwardly shaped central court, which gives inconvenient shapes for shops. There is no service entrance to shops, etc. The basement plan gives no indication of position of heating plant and of how fuel is to be brought in or stored, and the access from shops to storage space is inadequate. The plan follows the line of the site given in conditions. Staircases to office blocks are well placed, but lifts are apparently not provided to Block 2, and lavatories are awkwardly shaped and inadequately lighted. The chief interest is the elevation to Market-street, where the façade of the whole central part follows the lines and details of the existing Anglo-South American Bank in an ingenious composition.

No. 47 (commended) has an original plan in which the office block facing the curved line of frontage in Leeds-road is set back; the space thus lost is made up in this block by three additional stories of floors above the shops on the ground floor. The line of shops on this floor follows the line of site, but the plan is "staggered" so as to give a series of straight lines in frontage. There is a straight arcade from Market-street to Leeds-road, and stairs and lifts are well arranged. The planning is ingenious, but lacks the simple directness of the winning set. The elevations are broken up and lack cohesion, with awkward lines in silhouette, and are not very happy in the proportion of voids to solid.

No. 5 (commended) has a plan somewhat similar to that of the winning set, but there is no service access to the shops on the ground floor, and the cartway from Market-street to the Anglo-South American Bank yard upsets the elevation on this frontage. No lavatories are indicated on plans of office floors, and there is only one lift to each of the three blocks.

No. 22 (commended).—The elevation shows an able and interesting treatment with strongly marked vertical lines. The Market-street façade suffers by the repetition of the motif of the existing building in the central part with quite different treatment at each end.

As announced in our last issue, the award of the assessors (Professor S. D. Adshead, Mr. H. V. Ashley, and Mr. Robert Atkinson) was as follows:—

1st (£500): Mr. C. Cowles-Voysey, F.R.I.B.A., 14, Gray's Inn-square, London, W.C.

2nd (£200): Mr. Arthur Bailey, 161, Well Hall-road, Eltham, and Mr. D. H. McMorran (joint authors).

3rd (£100): Mr. T. Harold Hughes, F.R.I.B.A., 121, Douglas-street, Glasgow.

The authors of designs mentioned for "Special Commendation" are as follows:—

No. 5: Mr. Basil C. Deacon, F.R.I.B.A., 33, King-street, Luton, Beds.

No. 22: Mr. L. H. Bucknell, A.R.I.B.A., 104, Great Russell-street, Bedford-square, London, W.C., and Mr. R. Ellis (joint authors).

No. 47: Messrs. Percy Tubbs, Son & Duncan, F. & A.R.I.B.A., 39, Great James-street, Bedford-row, London, W.C., and Mr. S. Rowland Pierce, R.S., A.R.I.B.A. (joint authors).

A public exhibition of the designs will take place at Telegraph-chambers, Market-street, Bradford, from 3 p.m. on Saturday, November 9, to Saturday, November 23, between the hours of 10 a.m. and 8 p.m.

MORE GREEK STUDIES—IX

BY W. R. LETHABY.

APOLLO'S TEMPLE AT BASSÆ—(*continued*).

Sculpture.

IN the Museum are several small fragments of Metopes and a large part of a Frieze which surrounded the interior Court. The metopes were over the inner rows of columns at the ends of the building. That they were at both ends is definitely stated in some of the earlier descriptions, as, for example, Ellis's little volumes on the Museum marbles, 1833.

At the Museum we are told: "The subjects include musicians and the seizing of a woman." The Catalogue says: "The fragmentary state of the metopes makes the subjects uncertain, in most instances." Three of the fragments illustrated in Ellis's volume II, the Figs. 6, 7, 8, are described thus: "three which appear to have represented choragic figures were found in the pronaos"; that is, they surmounted the entrance. One (Fig. 6) is described in the Catalogue as: "510.—Figure wearing a helmet . . . the left hand seems to be playing on a lyre . . . the figure may be that of a Thracian citharist: the dress is nearly the same as that of Orpheus in the well-known relief."

FIG. 6.

The attitude and the way in which the lyre was held is also like an Apollo on a relief in the Townley Collection (Fig. 9). This figure, then, is a lyre-player, perhaps Apollo himself, or the great musician Orpheus.

The next fragment (Fig. 7) is described as: "512.—Female figure wearing a fine clinging chiton and mantle. The right hand holds two objects, perhaps *crotala* or possibly flutes, and the left hand was extended." Many representations on vases, etc., leave no doubt that the objects held were *crotala*, musical instruments like castanets or "bones," which were especially used by dancers. Compare a vase in the Music and Dancing Section of the Greek and Roman collection at the Museum; also Reinach I, p. 281. The left hand was lifted and would have held a second pair of the castanets; the fragment suggests a tripping, dancing movement (Fig. 10). Several other smaller pieces also belonged to music-playing and dancing figures. 515 is a "Fragment with the upper moulding and a circular object: this has been interpreted as a cymbal held by a dancing figure; perhaps it may be a ring from the top of a tripod." Re-examination, I think, shows that it was indeed a cymbal, and not a ring; it would have been held high by a dancing figure. On other small pieces are women's feet in dancing positions.

The fragment reproduced in Fig. 8 appears to me to be a part of a dancing woman's figure. Behind her neck is the hand of a second figure. This pair (517 in the Museum) was ingeniously restored by Cockerell as Apollo seizing Daphne. At the Museum it is described as "the seizing of a woman." Cockerell is said to have been "mistaken in thinking that the man's fingers were stretched out straight and have no grasp of the woman's neck." It seems to me that the hand is stretched out, has the delicacy of a woman's, and is, in fact, that of a dancing companion. A second fragment associated with this at the Museum has been

FIG. 7.

assumed to belong to the same metope: "we see a part of the feet of the woman, the toes of the man's right foot, and doubtful traces of his left foot; he was probably represented seizing the woman by the neck and knees." The restoration suggested will seem quite impossible if we try to draw it. The feet may not belong to the same piece, and, in any case, their position relative to the body is uncertain. Moreover, they are all in dancing positions, and the supposed man's foot is as delicate as the woman's and is shod exactly in the same way. It is certain, I think, that both pairs of feet were those of dancing women. The upper part of the body appears to be that of a woman dancing in a voluminous veil or mantle. Of such an ancient dance, we are told that the drapery "might at one moment envelope the whole body . . . the hands hidden in the mantle . . causing the drapery to ripple" (M. Emmanuel, *The Greek Dance*, p. 179. For position of feet see p. 225: compare a well-known relief at Athens.) With these comparisons a restoration might be confidently drawn.

Another fragment (516) is sketched in Fig. 11. In the Catalogue it is suggested that this may be Apollo, but the shining god would not look back, the attitude is that of dancing, and it is like a woman's figure.

On considering all these facts together, it becomes probable that one group of Metopes—those over the entrance—represented women dancing before a male resembling Apollo or Orpheus, who played a lyre. Remembering

FIG. 8.

the dedication of, and occasion for, building the temple, it seems evident that the lyre player would be none other than Apollo the healer. On his breast is a Medusa head, dispeller of evil, and he wears a helmet of salvation, he brings harmony and joy; possibly the dancers are the Muses. Compare the vase painting of "Maenads and veiled danseuse," given by Reinach (*Vases*, II, p. 290); also Furtwängler's *Vases*, 80. A still better analogy is the sculpture illustrated in Reinach's *Reliefs*, III, p. 284. One of the figures here has a lyre, others are mantle dancers; the feet especially should be compared with our fragments. Fig. 12, from a late relief in the Museum, is similar to the Bassæ dancers.

It is worth a little trouble to get some sight of the half-dozen metopes filled with pairs of graceful women dancing with fluttering garments and tip-toe feet.

Other fragments in the Museum probably belonged to the series at the other end of the temple. 513 is a Herakles-like figure, of which Fig. 13 is a restoration; the left hand rests on a club. This attitude is frequently found on fourth-century vases. (Compare also a coin of Athens in Miss Harrison's *Athens*, p. 422.) Another fragment (519) is described as an "obese bearded figure." Is this Pan? And can this series have represented those like Herakles and Pan, who were subjugated by Apollo? Altogether, restored drawings might be made with confidence of five or six of the figures. This, done by a competent draughtsman, and exhibited near the fragments, would enlighten our darkness. All these metope reliefs seem to be of fourth-century character.

The sculptured frieze of the interior, representing the contests with Centaurs and Amazons, appears to me to be still later in style than the metopes—a work, perhaps,

No. 13.

FIG. 9.

nearer 300 than 400 B.C. The slabs are only a few inches thick and were attached to the wall by bolts. In one place the relief laps over the next slab for an inch or two, showing that the slabs did not fit when they came to be fixed. This might suggest that they were brought from a distance already carved.

Indications of late date are found in many details, besides the general style of the whole, which seems fully as advanced and inferior to the frieze of the Mausoleum. Pathetic and grotesque incidents, the over-violent action, fluttering draperies and strained skirts, are all late characteristics. Of the details, I would mention the conical helmets; the wheels, having six baluster-shaped spokes, of the chariot; the perspective treatment of this same chariot (Fig. 14); and, finally, the "picturesque" introduction of a tree with a lion's skin hung on it—a hint of the coming of landscape backgrounds.

The style of the sculpture has always been a puzzle and many theories have been put forward to account for it. "Mannerisms in the treatment of drapery make it likely that local artists of Peloponnesian training were employed in the execution under the general direction of an Attic master. . . . The pictorial and decorative elements, especially in the treatment of drapery, were naturally either exaggerated or inadequately mastered by the local artisans to whom they were unfamiliar." (Dr. E. Gardner, *Handbook*, p. 324). A difficulty in this explanation is that local artisans are never in advance of the fashions of the time.

Michaelis accepted the architectship of Ictinos, and writes: "But the frieze demanded explanation: its frequent Attic suggestions and on the other hand a style of

greater severity [?] have not yet received a satisfactory explanation. Stackelberg, who devoted great care to the study of the frieze, sought to discover its author in Alkamenes, the most talented of the pupils of Phidias. Very few have been able to accept therein a solution of the riddle."

My solution of the riddle is that the

FIG. 10.

temple was late, and that the frieze sculpture was still later, say, 375 and 350 B.C. On reviewing the indications of date, I am struck with the way in which the steps and plinth blocks are undermined at the bed, resembling the masonry of the Philippeion at Olympia; and also with the close resemblance of the ceiling coffers of both buildings. Again, the Corinthian capital at Bassæ is in closer relation to other later capitals than that at Tegea, and I think it must be of later date.

A Court Temple.

In 1908 I had come to the conclusion that the main part of the interior must have been entirely open to the sky, the smaller chamber at the end which contained the statue being roofed. That this was so was suggested by the facts that the sculptured frieze would have required a good light, that there was a complete cornice with a dripping corona above this frieze, and that the central part of the floor is at a lower level than the rest. This I now find was the earlier view before Cockerell introduced ingenuities of skylight roofing. Haller's MS. states "the temple was uncovered in the middle and thus was hypæthral." In Ellis's account of the

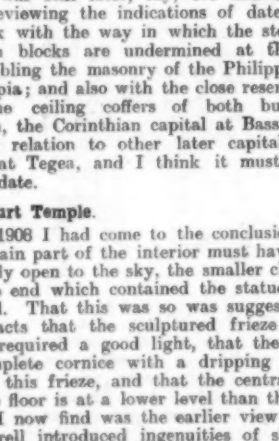


FIG. 11.

marbles we are told that "the bronze statue of Apollo twelve feet high stood in the cella or inner chapel: the cella was the only part of this temple which had a roof." More recently Michaelis, the great German authority, came back to this view. "There is no question at Bassæ of a covered apartment, but of an open court such as has been proved to have existed in other temples, *e.g.*, Didymaion near Miletos" (*Discoveries*, 1908). All the ingenious theories that have been set out concerning the roof lighting of temples seem to collapse under examination: there were what may be called chamber-temples and there were court-temples. Some of the latter type had comparatively small temple-like shrines within the open court. At Bassæ there is a covered sacred chamber beyond the enclosed court; as the whole structure is small this is of the same width as the court.

. . . . . .

ELEUSIS AND RHAMNUS.

In 1811 the Society of Dilettanti organised an exploring expedition to Greece and Asia Minor. It was led by Gell and accompanied by Gandy and Bedford. A part of the results appeared in *Unedited Antiquities of Athens*, 1817; one of the books with engraved plates which we could then produce. This publication illustrating "the sanctuaries of the Eleusinian Mysteries and the Temples at Rhamnus marks a great advance in our knowledge of Greek Architecture" (Michaelis). I have given an account of the mission in *Ionian Antiquities*, Part V, 1915.

FIG. 12.

At Eleusis was noticed in a church "two very curious marble torches, about eight feet high, now placed in an inverted position." These are now in the local museum; they have been supposed by some recent English writers to be columns, and because they expand upwards, of the Mycenæan age, but the old account is better.

The most striking memorial of Eleusis now in England is the upper part of a colossal caryatid figure in the Fitzwilliam Museum, Cambridge. A sketch of this before it was removed is in the Gell collection at the British Museum. A friend who has just visited Eleusis tells me that a companion piece in the museum there is perfectly preserved. In the British Museum is one antefix.

At Rhamnus two temples were discovered quite close together: one was a little thing apparently of late sixth-century work, and the other was about a century later. This latter was dedicated to Nemesis, the earlier one either to the same or to Themis. In the British Museum we have a large fragment of the head of the great cult statue of Nemesis which occupied the later sanctuary, and a much broken statue which was found in the older building; both were presented by Gandy in 1820. The second figure was life size and very stiff and upright. It has been described in the Museum publications as truly archaic or an imitative archaistic work. Exhibited in the galleries for about a century, it has recently been taken to the basement, and in the new catalogue is called archaistic.

The discoverers thought that it was the actual cultus image of the archaic temple. It was described by them thus: "A statue, six feet in height, wanting head and arms, was found near the doorway: the style of sculpture denoted an early period of the

FIG. 13.

art." The pronaos of the temple occupied more than a third of the total length, so that "near the door" implies within the structure. On an engraved plate it is shown on a pedestal as the temple image. In the handbook of 1851 it is described as "a very interesting specimen of archaic art, found in the Temple." In the 1892 Catalogue it appears in the archaic section. In the *Athenæum*, October 15, 1920, I spoke of it with special interest. If this statue is indeed, as I believe, the ancient cult image of the temple, it is of great importance; the question should be reconsidered with care and reasons for a conclusion set out. If it is compared with the archaistic Diana in the Greco-Roman corridor, it will be seen that the latter is a learned whim-work; the body

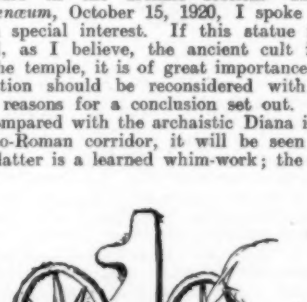


FIG. 14

being skilfully indicated under ancient-looking drapery. Not so the Rhamnus figure, which is truly crude in modelling and wooden in conception. To me it has the character of a truly archaic image, a sister work of the famous *Korai*, by comparison with which a restoration might confidently be made. It will, I hope, be brought out again some day to be made much of as an early Greek sacred statue and the centre of a typical early Greek group representing the age of Peisistratus.

Note.—The metopes at Bassæ should be compared with the "dancing maidens" on the acanthus column of the Apollo sanctuary at Delphi, and the Corinthian capital with the same column. The size of the stylobate at Bassæ seems to have been 50 × 130 Greek feet.

THE MODERN PROVINCIAL NEWSPAPER BUILDING—III

By L. W. THORNTON WHITE.

CONSTRUCTION.

It is scarcely necessary to emphasise that a modern newspaper building must be constructed to a high standard of fire resistance. Insurance companies usually accept reduced premiums if the works departments can readily be isolated, by fireproof doors or otherwise, from the clerical departments.

The assembling of the printing machines, etc., is a lengthy matter and their installation will have to be commenced at an early date if the building is to be ready for immediate use on completion. It is essential, therefore, that a method of construction be adopted which will enable the machine rooms to be complete in themselves before the upper stories and roof are finished. Externally the constructional materials will need to render the building conspicuous and "important" for the purpose of advertisement. A successful treatment will most certainly not be obtained if an attempt is made to hide this demand under conventional architectural features. The problem demands a bold solution and offers a splendid opportunity for a building in the spirit of the century. A name panel is surely better provided for in the initial construction than left to be added later in the form of some illuminated sign of dreadful lettering and hideous scale.

Internally the constructional finishings of the public space and clerical departments call for no special comment, but follow the limitations of cost and upkeep usual in modern building. It must be borne in mind that a building of this description is occupied almost continuously and the choice of materials should be governed largely by considerations of cleanliness. Rapidity in the cleaning out of partially occupied premises is essential. Special regard must be given to several of the rooms occupied by the works departments, and they are considered in further detail below. Ease in the subsequent rearrangement of rooms is worthy of consideration, and indicates that they should be formed of slab partitions instead of weight-carrying walls.

The linotype room houses delicate and costly machines and should, therefore, be easily kept clean. Its walls may be lined with tiles, glazed bricks, or similar material, to a height of at least 7 ft., if not to their entire height. The floor of the linotype room is important and should be quite free from vibration. In it are required to be embedded water, gas and electric conduits, the former being the largest diameter, approximately 2½ in. One of the best arrangements is to run the pipes in floor troughs along the regular lines of the linotype machines, as shown in the accompanying sketch. The material used in the finished surface of the floor varies considerably in existing newspaper buildings. Solid floors finished in granite chips and cement, tiles or terrazzo paving, are strongly advocated by some organisations, but are objected to by others on account of the awkwardness and expense entailed in renewing lines of piping embedded in such floors. Wood blocks should be avoided on account of their tendency to lift when subjected to trolley traffic. In the writer's opinion the most satisfactory floor is one constructed of kiln-dried maple in short lengths and narrow widths, grooved and tongued at sides and ends and secretly nailed to splines in a light but firm concrete filling. The pipe lines are then formed in the thickness of the concrete filling and covered by movable widths of boarding screwed to rebated curbs—the whole being, of course, supported on a rigid reinforced concrete floor. A floor of this description is comparatively noiseless, allows of easy access to the pipes and is readily renewable in parts only where a concentration of traffic occurs. This latter feature holds a very great advantage over granolithic, terrazzo or similar surfaces, where subsequent patching—inevitable in a complicated room of this description—never satisfactorily joins up with the surrounding flooring.

The walls of the stereotype foundry and the machine room are preferably lined with tiles or glazed bricks to their full height. The floor material of the former is dependent to some extent upon the fuel used by the autoplate machine. Should gas be used, the floor may be of maple boarding, like the linotype room, with metal trays beneath the casting boxes. Coal or coke fuel demands a granolithic or similar floor.

The pits for the printing presses are best constructed of mass or reinforced concrete, faced, if thought desirable, with tiles. Access to the pits must be readily available, and a solid concrete floor between each machine is therefore undesirable. The most successful machine room floor is constructed of steel chequer plates carried on light steel joists and stanchions, the plates being bolted to the supporting steelwork. A small manhole formed by a loose chequer plate is most desirable to each machine, and a permanent steel ladder fixed under each manhole down to the basement level is an advantage. The inspection or visitors' gallery looks well and is serviceable if constructed of steel in the manner of the galleries in a liner's engine-room.

Particular care is necessary in the choice of materials for the cash sales room of the publishing department. The whole surface of the room must offer an impregnable surface to destructive penknives. No wood should be visible. Walls of glazed brickwork, floor of granolithic, counter of hardwood covered with iron sheeting, counter screen of wired plate glass in steel frames (to exclude noise), steel staff doors with no visible screws on the cash sales side, newsboys' entrances governed by roller steel shutters controlled outside the room, queue barriers of steel framing filled with extra strong metal mesh (to prevent the boys climbing about)—all this is essential to an efficient and lasting cash sales room.

A tiled or terrazzo floor and similar dado are very necessary in the photographic-room, while a like floor and wall tiling to the full height of the room must be provided for the process-room. Acid-proof materials, including acid-proof paint, are essential throughout the process department. The floor of the acid store must be laid to fall towards a suitable outlet connected through acid-proof pipes to the drains. The dark-rooms may be lined with matt surface tiles of a brown or red colour.

Traffic throughout the works departments of a newspaper building is very heavy. Staircases and steps must be constructed of the hardest materials of non-slipping properties. I have seen thresholds over which paper reels are daily handled completely worn away in a few months, though they were constructed of sharp Aberdeen granite chips and Portland cement. Chequered steel plates with rounded and grooved nosings appear to be the most suitable material for such positions.

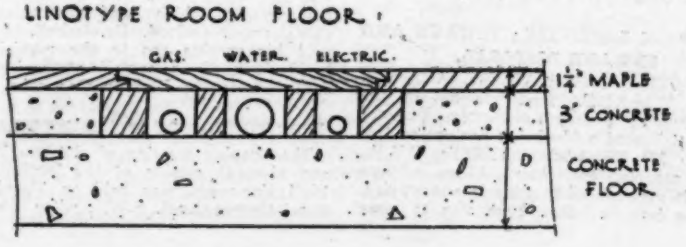
The electrical equipment of a newspaper building, being of more than usual magnitude, demands special consideration along with the planning and construction of the whole building. The main switchboards, for both power and lighting, will be large enough, alone, to require special accommodation. A private generating plant is usual in some districts for emergency use, and requires change-over switchgear on the boards. Power is required in every department—linotype-room ventilation fans, lamps in the photographic-room, goods and passenger lifts, telegraph instruments, heating accelerator, etc., as well as to the motors driving the several machines in the foundry, machine and linotype rooms.

One or two installations of a more or less luxury type are inevitable in a modern building, many of which require special accommodation for the housing of apparatus. Lamson pneumatic tubes for the distribution of copy from the sub-editors' room to the composing department require a special blower-room in the basement. Installations such as electrically controlled clocks, fire hydrants, central vacuum-cleaning plant, internal telephone communication, etc., each demand careful consideration at an early period in the planning stage of the project, if a wild confusion of pipes and conduits is to be avoided.

Future Possibilities.

It is clearly the duty of architects, exponents of the "Mother Art," to progress in lines parallel with science and industry. To suggest, to render assistance, if needs be to lead; certainly to anticipate. The general adoption of news photographs by newspapers commenced in the present century. It appears reasonable to forecast that developments in photo-mechanical reproduction will render the illustration of news a more prominent feature in the newspapers of the future. The process-rooms may become as extensive and important as the linotype department. Colour photography and reproduction, even now attaining some degree of success in the cinema, may be exploited by some future journalist as a means of imparting originality to his publications, to be rapidly taken up by newspapers generally, until coloured illustrations become accepted features of our dailies. Telephotography and wireless telephotography, at present producing illustrations of a rather crude type, must certainly soon render obsolete much of the existing process of reproduction. The receipt of news by wireless, guided by the editorial department and automatically arranged and printed, entirely eliminating the elaborate processes of the linotype and stereotype—is this not within the bounds of possibility? Or will the public receive its news in the future without the aid of the newspaper—a wireless tape-machine in one's own home automatically switching on when news of any prearranged character is broadcast, with dials labelled "general news," "sport," "financial news," "commercial news," etc., so that every interest may be satisfied. This to the distant future; in the more immediate future, will not the aeroplane, airship or helicopter render obsolete existing methods of motor and rail delivery and transfer the publishing department from ground-floor level to the roof, whereby the fullest advantage may be taken of a more rapid means of transport?

[*Concluded.*]



SOCIETIES AND INSTITUTIONS

THE WONDERS OF BABYLON.

SIR BANISTER FLETCHER, P.R.I.B.A., in his lecture on Wednesday evening, October 30, at the Central School of Arts and Crafts, on Babylonian, Assyrian, and Persian architecture, said the architecture of Mesopotamia differed much from the Egyptian in character, for it was arched and vaulted and not trabeated, as was inevitable in an alluvial country which supplied clay for the making of bricks to be used in arches and vaults, but no stone for flat beams. In the earliest or Babylonian period every city of the Chaldeans had its lofty "ziggurat" or "holy mountain"—a pyramidal observatory-tower with a richly decorated temple chamber on the summit, from which the astrologer-priest could study the heavenly bodies. The Ziggurat at Nimroud was erected in seven receding terraces, each dedicated to a planet and decorated symbolically in glazed bricks of varying colour. A most interesting restoration of the ancient city of Babylon with its lofty "Tower of Babel" and Ziggurat in seven stages, royal palace of Nebuchadnezzar, and hanging gardens, gave an excellent idea of that wonder city of the past which was described by Herodotus and Strabo.

In the Assyrian period (about 1275-538 B.C.) the chief buildings were the vast palaces for the kings, which were raised on mighty mounds or platforms by hosts of slaves who lived and toiled in the miasmic plain below. The buildings and decorations reflected in a remarkable degree the nature of the country and the building material it supplied, as well as the social and political conditions of that age—the dominance of warlike kings and the subservience of the bond people. The perishable brick material necessitated by the absence of stone was largely responsible for the disappearance of the buildings, for it had mostly returned to its original clay, leaving only the fine alabaster slabs. British excavations at Khorsabad had revealed the plan of the town and of the Palace of Sargon, 25 acres in extent, with its long narrow apartments suitable for roofing by brick arches. The lecturer concluded with an interesting account of the Persian art of Susa and Persepolis.

SCOTTISH ARCHITECTS.

At the monthly meeting of the council of the Royal Incorporation of Architects in Scotland, held at 15, Rutland-square, Edinburgh (Mr. D. A. Stewart, of Perth, president, in the chair), the following new members were admitted:—Mr. W. R. Glen, Mrs. E. B. Hughes, and Mr. J. H. Gray, all of Glasgow, as Fellows, and Mr. A. M. Goudie, Hamilton, as Associate. The council appointed a sub-committee as deputation, along with representatives of the Institution of Municipal and County Engineers, to approach the Department of Health for the purpose of discussing model building by-laws for burghs and counties in Scotland. Mr. John M. Aiken, A.R.S.A., of Aberdeen, was commissioned to paint a portrait of the late Sir Robert Lorimer, K.B.E., ex-president. A special committee was also appointed to co-operate with the Faculty of Surveyors of Scotland as to the revision of the Scottish mode for the measurement of building trades. The annual convention of the Incorporation is to be held in Aberdeen during the first week-end of June, 1930.

CHADWICK LECTURES: SEWAGE AND SEWAGE DISPOSAL.

On Tuesday, October 15, Mr. Arthur J. Martin, M.Inst.C.E., Past-President of the Association of Managers of Sewage Disposal Works, delivered a Chadwick Lecture on this subject. Mr. W. Addington Willis, C.B.E., LL.B., occupied the chair. When millions of people were herded together in a great city, said the lecturer, they gave rise to some very awkward problems. Not the least of these was the disposal of their waste products. Sewage farms had had their day, and chemical precipitation was now rarely resorted to. Sewage, dead and depressing as it looked, was really a little world, teeming with life, and the myriads of bacteria which it contained were the chief agents in its purification. The task of the engineer consisted in providing workshops for them. The modern bacterial treatment of sewage began with the London County Council's coke filter at Barking and Mr. Cameron's septic tank. At that time land treatment was looked upon as the only sure means of purifying sewage; but suitable land was often unobtainable. The Royal Commission on Sewage Disposal found that good effluents might be produced by the so-called "artificial" processes, and these were now in general use. The purification of sewage was often hampered by the presence of the liquid wastes from factories. The wastes from beet sugar and artificial silk works were particularly difficult to treat, and many streams were badly polluted by them. The law governing the admission of manufacturing wastes into sewers was very conflicting and needed to be cleared up. Foul matter was purified by oxidation. Solid refuse was burnt in a furnace; dissolved impurities were dealt with by a process of "moist combustion."

Prior to Mr. Martin's lecture, Mr. Kasimbhai G. Shaikh was presented with a Chadwick Gold Medal and Prize of Books for excellence in municipal engineering and hygiene.

In a second lecture on this subject, given on Thursday, October 17, by Mr. Arthur J. Martin (Sir George W. Humphreys, K.B.E., M.Inst.C.E., in the chair), the lecturer said sewage was purified in two stages. The solids were first settled out, and the dissolved impurities were then oxidised in bacterial filters. Fifteen years ago the purification of sewage by means of sedimentation tanks and trickling filters appeared to be standardised, when Dr. Fowler threw a bombshell into the camp in the shape of the activated sludge process. Instead of passing the sewage through a filter, the filter, in the shape of innumerable particles of activated sludge, was passed through the sewage. The sludge was then settled out, leaving the liquid brilliantly clear. In the first flush of enthusiasm many people jumped to the conclusion that tanks and filters were doomed to disappear; but the new process was more likely to supplement the older methods than to supplant them. By interposing an activated sludge plant between sedimentation tanks and filters the latter were enabled to deal with two or three times as much sewage as they otherwise could. By so doing Birmingham was able to save the cost of laying down an additional acre of filters every year. Londoners might well be proud of their record in connection with sewage. Their main sewers, laid down sixty years ago, were doing good work to-day, and for half a century the Thames had effectively purified the sewage. The flow of sewage was now outgrowing the capacity of the river to deal with it, and the County Council were about to lay down up-to-date works to assist it. The enormous quantity of sludge which was produced day by day had long been the nightmare of the sewage works manager. It was now often dealt with by digestion, in the course of which large volumes of valuable gas were evolved. Dr. Imhoff, of Essen, sold his surplus gas to the municipality. London's northern outfall at Barking was next door to the Beckton Gasworks.

INSTITUTION OF CIVIL ENGINEERS.

The opening meeting of the one hundred and eleventh session of the Institution of Civil Engineers, was held on Tuesday, at Great George-street, S.W.1, when the president, Mr. W. W. Grierson, C.B.E., delivered his inaugural address. Taking transport as the general subject of his address, the President dealt first with the history and present state of railway and canal transport. Industrial depression, road motor competition, the development of air services, and depleted revenue drew attention to the change in conditions which formerly caused railway securities to be regarded as one of the soundest of industrial investments; and it was not improbable that in some minds the fear had arisen that the days of railways as successful commercial undertakings were numbered, and that their ultimate fate would resemble that of the canals which preceded them.

In the middle of the eighteenth century roads were miry lanes, fords were common, and the conditions were such that transport of goods was largely done by pack-horse. It was not until the early years of the nineteenth century that improvements in roads led to their general use for the conveyance of freight. Well before that time, however, natural waterways, and later canals, were the principal means of transporting bulky and heavy goods. The rapid development of canals was largely a result of the success of the Bridgewater canal, sanctioned in 1762. It was probable that the prosperity of the canals, some of which at one time yielded dividends of 100 per cent. per annum, was instrumental in hastening the advent of railways; for the proprietors, being subject to no control in respect of tolls, and believing that they held a monopoly, were unwilling to reduce their charges. The first effect of the railways, which, unlike the canals, were not affected by shortage of water or frost, was a great reduction in the charges for canal transport, rather than in the volume of water-borne traffic.

It was difficult for a railway engineer whose duties included the supervision of canals to see any hope that canal transport, in general, would prove economical to-day in England. A substantial number of the original canals were derelict, and the remainder were not prosperous. It was questionable whether useful comparison could be made with canals on the Continent, where geographical, physical, and political conditions were so different. Another factor, which did not obtain on the Continent, was that traders in England required speedy delivery of small consignments. Further, in Belgium and Germany both canals and railways were state-owned, and the policy had been to foster water-borne traffic. It seemed that any state-aided scheme for the improvement of transportation in Great Britain would be more likely to succeed if it assisted the railways rather than a system that was nearly obsolete in this country.

With regard to railway electrification, while the superiority of electric traction on suburban lines had long been established, it was doubtful whether it would prove economical for main lines in this country. Statistics relating to European railways showed that electric traction was adopted on main lines largely where the availability of water-power, the non-existence of native coal, and steep gradients favoured the electric locomotive. Transport by road was at present relatively subsidised, and the cost to the community not fully recognised, and it was possible that this consideration in the future might carry weight in the interests of national economical transport, and that the road vehicle might become to a greater extent a useful feeder to the railways rather than a favoured competitor.

No attempt to sketch the development of transport would be complete without reference to the remarkable progress of transit by air. In considering the advances made during the last century in commerce and relationship with distant countries as a result of new means of transport, it might well be wondered what new developments the future had in store. No limit to progress had yet been set; and distance, as a commercial and political factor in the intercourse of nations, was gradually being eliminated.

GAS CONFERENCE AT EASTBOURNE

THE eighteenth annual general meeting and conference of the British Commercial Gas Association was held at Eastbourne on Monday, Tuesday and Wednesday of last week, under the presidency of Mr. Frank Harding Jones, M.Inst.C.E. During the meeting a number of lectures and addresses on subjects relating to the gas industry were given by different experts, and interesting discussions followed.

On Monday, in the Floral Hall, Dr. C. W. Saleeby, in the course of a lecture on "Sunlight and Health," said he considered that the Public Health (Smoke Abatement) Act, 1926, was not sufficiently wide in its scope. He made efforts during the reign of Mr. Neville Chamberlain at the Ministry of Health to get a clause inserted into the Act empowering local authorities, if they would, to require the installation of smokeless equipment in new houses in their area. Mr. Chamberlain declined to consider even new domestic chimneys. The lecturer hoped that Mr. Chamberlain's successor, Mr. Arthur Greenwood, would be more amenable to his suggestion, and thereby take an important step in guarding the welfare of the public.

Mr. F. H. Jones, in the course of his presidential address to the "Business Conference" on Tuesday, said that in all the new homes for gas apparatus which were being found they must not lose sight of some of the older purposes for which gas in its infancy was used—and was still being widely used in the 117th year of its existence. The gas industry had for its first objective "lighting." It was as an illuminant that its foundation was laid. It was as an illuminant that its whole fabric as an industry was built up. There were means to-day of lighting streets, workshops, large open and enclosed areas, shops, houses and, in fact, almost anywhere that artificial lighting was necessary, which far exceeded in efficiency and economy anything ever dreamt of even 25 years ago. He believed most of them who had to do with the gas industry realised how efficient and how popular good modern gas lighting could be—and by "good" he meant well installed and efficiently maintained—but there were some of the general public who seemed to think that gas lighting could not compete with electric lighting. On its own merits as an illuminant, gas for most lighting purposes could more than hold its own, and he would urge those who doubted this fact to pay visits to places where care had been taken to show what gas really could do in this field.

When they realised that during the past ten years the sales of gas in this country had been increased by over 30 per cent., he thought they had every reason for confidence, especially when they remembered those past ten years had not been a period of abnormal prosperity and also when they took into account the fact that most apparatus installed in that period was more efficient and more economical than much of the plant used in years gone by. The past decade showed steady annual increases in the services given by gas. Many of them must often be asked: "How is it the gas industry still grows in face of its many competitors?" His answer always was: "We use a ton of coal more economically, *i.e.*, more productively, with much less waste, than anyone else, and we try to give 'service' all the time." There were many other reasons, but surely those were the two main factors. Included in "service" there was one great benefit they gave automatically, and that was in reduction of smoke in our cities.

Sir Lawrence Weaver, K.B.E., lecturing on "Pleasures of Salesmanship," said it was the business of the salesman to study phases of industrial and commercial history, because a knowledge of them would increase his grip on the future developments, which he ought to be able to discuss with consumers. The salesman was the link between the technician and the consumer. He could let the research worker and the engineer know what people wanted, because he knew how far they were dissatisfied with what they had.

Their Royal Highnesses the Duke and Duchess of York visited the conference at the Floral Hall on Tuesday afternoon, and were received by the President, Mr. Frank Harding Jones, who delivered a short address of welcome, to which the Duke replied, after which a number of presentations were made.

The conference banquet was held on Tuesday evening, under the chairmanship of Dr. T. A. I. Howell, J.P., of the Wandsworth Gas Company. After the loyal toasts had been honoured, Sir Arthur Duckham, proposing "The Gas Industry," said the gas industry was one of the oldest serving the community, and its future would far eclipse its past, but there was much to be done. The only way in which an industry could prosper was by efficient production.

Mr. Alfred Procter, in reply, reminded his listeners of the great work of Mr. F. W. Goodenough in salesmanship. As a result of the striving of the Association they had seen a progressive growth in consumption at an average yearly rate of 3 per cent. The gas industry used coal economically and efficiently, and returned 80 per cent. of the value of coal to the community.

The conference was brought to a close with a lunch at the Grand Hotel on Wednesday.

SMOKE ABATEMENT

SIR DAVID MILNE WATSON, in his Presidential address to the members of the Institute of Fuel, at their annual conference at the Institute of Mechanical Engineers on October 24, dealt with the question of "Smoke Abatement." After referring to the improvement in the ash content of coal delivered, due to increased care at the pits, and extension of the practice of coal cleaning, the advantages of which it was unnecessary in these days to quote chapter and verse to prove, he stated that the processes for cleaning coal appeared year by year to approach certainty of operation and to result in less loss of coal substance in the refuse, and entail less preliminary sizing of the coal, with a consequent reduction in the size and maintenance costs of the apparatus. Proposals for the erection of a large generating plant in London had recently drawn public attention to the wider aspects of air polution which resulted from the combustion of fuel. He was afraid that the public conscience was still not very sensitive to the beneficial effects of the extra sunlight secured by the abolition of the smoke pall in large towns, but he felt that the introduction of high quality smokeless fuels for use in the flaming and smoking domestic coal fire and recognition of the results of the ever extending use of gas and electricity would tend to create greater appreciation of the benefits of a purer atmosphere.

After touching on the possibility of curing the difficulty of dust emission from pulverised fuel burners, he stated that the remaining difficulty—pollution by non-visible gases such as sulphur dioxide—did not seem so easy of solution. In the case of the various carbonising processes at least one-third of the sulphur in the coal treated was definitely removed in the process of manufacture, and so did not reappear in combustion of the products. It had been proposed to wash the power station flue gases to remove the sulphur, and the cost of so doing and the chance of success would be watched with great interest. The policy of concentration of the generation and utilisation of energy in whatever form carried out, inevitably resulted in difficulties from air pollution, from noise and other forms of unnatural disturbances which became more prominent at points of concentration. Whilst keeping the ideal before us, we must not allow progress which benefited the whole community to be hindered unduly by sympathy with a small minority. Exhaust fumes, noise and street accidents were part of the price paid for development of motor transport.

Cheap hydro-electric power could only be secured at the expense of the beauty of the countryside. At the same time, whilst recognising that where genuine benefits were secured to large numbers of the community there was always the possibility of collateral disadvantage to the minority, we must not allow the principle to be extended too far. Unfortunate instances of this would no doubt occur to his hearers, for example, the recent attempt, which would have the effect in many unprejudiced persons' minds of spoiling the beauty of the Highlands by the promotion of hydro-electric schemes which, on the promoters' own showing, offered no advantage over fuel-fired stations more conveniently situated.

WATER BOARD FINED

Objection to Internal Pipes Overruled.

A CASE of considerable importance to builders in the Metropolitan area has been decided before the Kingston County Magistrates recently, when the Metropolitan Water Board was fined on a summons taken out by George Dennis Petty, of 40, Berrylands, Surbiton, for "neglecting or refusing" to furnish to Mr. Petty a supply of water at his house during a time when the rate for such supply had been paid.

Mr. E. L. O. Sachs, for the complainant, said that the complaint was that no water had been supplied by the Board, although the apparatus was in order and the rate had been paid. The defence, in a nutshell, was that the apparatus was not proper, because the interior piping was of half-inch copper 19-gauge pipes and the Board said that the piping should have been 18 gauge. The pipes had been put in by the builders, H. C. Jones & Co., and they had put pipes of the same diameter and gauge in between 350 and 400 houses, all within the Water Board area. There were 16 or 17 new houses in which the same piping had been used, and the Water Board would not pass them, and said they must be re-piped before the water could be supplied.

The section under which the proceedings were brought was section 43 of the Waterworks Act of 1847, which provided that the Water Board must, under the penalties provided, furnish to any owner or occupier entitled to receive it a supply of water during any part of the time for which water rates were being paid or tendered. An Act of 1871, passed at a time before the Water Board had come into existence by the amalgamation of all the water companies, provided for the making of regulations under section 56 of an earlier Act, the Metropolis Water Act of 1852. In the Act of 1871 there were provisions for the amendment of regulations, but it stated that neither regulations nor amendments could come into force until there had been an inquiry before the Board of Trade, now the Ministry of Health. That being the position, these regulations under the Act of 1871 were the only regulations which the Water Board had power to make, and there was no mention of the gauge of interior piping.

Mr. H. O'Hagen, for the Metropolitan Water Board, said the Board's obligation was to supply water through proper apparatus, and the defence submitted that this covered workmanship and the thickness of the pipes.

The Bench found that the case had been proved. The Chairman (Mr. R. V. Somers-Smith) said it was not a case for a heavy penalty, and there would be a nominal fine of £2, with a continuing penalty so long as water was not supplied.—*The Times.*

[An article on this case will be found on page 794.]

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting?—ED.

Garage Roof.

SIR,—I propose to cover with asphalt a garage roof, size 16 ft. by 8 ft.; thickness of asphalt 1 in. Could you tell me the amount of asphalt required and cost, also what ought to be the cost of labour? I have received an estimate of £10 10s., which I consider extremely excessive.

R. R.

Repointing House.

SIR,—We have to repoint a small Victorian villa in a garden suburb. It is built in mellowed stock brick with white external angles to the house. We should be very glad of advice as to the most artistic way of dealing with this as to type and colour of joint, etc. The house is mostly creeper-clad at the moment, but we should have to remove most of this.

PUZZLED.

Breeze Blocks.

SIR,—I should be glad to know whether the weight-bearing properties of good breeze blocks compare favourably with those of brickwork. Possibly the results of actual experiments are recorded and can be referred to, in which case I should be glad to know of them.

BUILDER.

Fire Insurance during Maintenance Period.

[REPLY TO "FEU," OCTOBER 18.]

SIR,—Your correspondent's difficulty calls attention to the slackness which often prevails in the drawing up of a building contract between parties. Architects are generally less guilty than most, but there is a general feeling that the contract is a superfluous formality, and that it is not worth while calling it to question at the outset. Those who become the victims of this slackness learn their lesson in a hard school, but more precision in such matters will obviate the difficulties which crop up at least once in the careers of most architects and builders.

PRECISION.

Building Without Official Sanction.

[REPLY TO "JUSTICE," OCTOBER 18.]

SIR,—This query raises an old one: Who is "the any person intending to build," etc., referred to in the by-laws? Is it the employer, or is it the builder? This does not appear to have been cleared up at any time, and I should be glad of your legal correspondents' opinions.

ARCHITECT.

Steel Windows and Rust.

[REPLY TO "UPKEEP," NOVEMBER 1.]

SIR,—Treating the steel windows with a galvanising process, or with zinc spray or some form of stoved paintwork, is a wise provision which quickly recovers a fairly substantial increase in first cost by a material saving in maintenance.

POUND WISE.

Back-flooding of Drains.

[REPLY TO "ARCHITECT," NOVEMBER 1.]

SIR,—A specially made pipe containing a floating copper ball slightly larger than the drain-bore will form a fairly efficient check to back-flooding; but it is better to plan so that no drains come below flood level, and this can generally be contrived.

FALL.

Asphalt.

SIR,—I have heard of several instances where asphalt flats on important buildings have been found to crack badly a comparatively short period after laying. Are there any measures to be taken to avoid this defect, and what is the best treatment to adopt as a remedy?

ANXIOUS.

Cupola Clocks.

[REPLY TO "IGNORANT," NOVEMBER 1.]

SIR,—The clock will be driven by weights, unless electrically controlled. In the former case it is a simple matter to gear the weight cords over pulley wheels so that the weight can drop down some cased-in corner of the building which need not be directly under the cupola.

SOLVIT.

Flush Doors.

[REPLY TO "DESIGNER," NOVEMBER 1.]

SIR,—The flush door is not a natural form of construction, even with three-ply available, and it is accordingly expensive. A rough framework faced with three-ply shows the edge of the latter if simply well clamped down with studs, or, if clipped with a rebated mould, introduces difficulties with standard locks and hinges. Best stick to panelled construction.

CONSERVATIVE.

SIR,—The method illustrated is one which I frequently use and have found thoroughly satisfactory. The door is made in frame form only with centre "filler," and then

faced with veneered plywood. Admittedly this is not a "true" flush door, but it is economical.

ARCHITECT.

The Cheapest Plan.

[REPLY TO "LAYMAN," NOVEMBER 1.]

SIR,—The square plan is a fallacy of the paper designer; it implies, in most cases, the pyramid roof, in which every rafter is of special length, and cuttings to boarding felt and tiling, with consequent waste. It is also difficult to plan such an interior economically, with due respect to the several parts required. The only case where the square and pyramid is tolerable in appearance is that of the formal lodge to a mansion house, where all-round symmetry of view is aimed at; but the square private house is more often than not a pepper-box. Even if the form be gabled, the roof is essentially higher than that of a rectangle, and as much money is squandered above plate-level as saved in perimeter.

PLANNING.

SIR,—If cubic contents were the only consideration in a building—then a perfect cube is the most economical shape. In buildings we are never satisfied with cubic contents merely; these do not answer to all our requirements—which in a dwelling-house are many. The designing of even small houses is a difficult job and can only be successfully accomplished by those thoroughly trained. The safe way for the average person is to approach an architect who is used to the kind of building required and be guided by his advice.

F. PALMER.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

Both Houses of Parliament reassembled last Tuesday week after the summer recess.

Rural Amenities.

Sir Hilton Young has introduced a Bill to provide for the better preservation of rural amenities and objects of national interest.

Slum Clearance.

Mr. Snowden, in outlining the business of the new session, foreshadowed the introduction of a Slum Clearance Bill.

London Squares.

Mr. Greenwood, the Minister of Health, informed Sir K. Wood that he proposed to introduce a Bill on the subject of London squares this session.

Expenses on Government Buildings.

Mr. Lansbury, the First Commissioner of Works, informed Major Glyn that the annual expenditure in rents for buildings housing the staff of the various Government offices (excluding Post Offices, Museums and Galleries, Coastguard Stations and Ministry of Pensions Hospitals) was as follows:—

(a) London, £396,740; (b) Provinces, £307,092.

Charing Cross Bridge.

Mr. Albery asked the Minister of Transport whether he could now say approximately how long it was estimated to take to complete the new Charing Cross station and the temporary bridge over the Thames.

Mr. Morrison replied that before the construction of the new station and railway works on the southern side of the river could be commenced it would be necessary to acquire and clear the site and provide the necessary rehousing accommodation for persons of the working classes who would be displaced. It was difficult to give an accurate estimate of the period which it would take to complete the construction of the railway station, railway works, and the temporary bridge, but, assuming that all negotiations proceeded satisfactorily, it was estimated that the completion of those works would take not less than five years from the date of the Royal assent to the Bill.

Mr. Thomas, the Lord Privy Seal, in outlining the Government plans for the relief of unemployment, said that the question of the new Charing Cross bridge was being "speeded up." He hoped a Bill would be introduced this session and that work would be begun next May or June. He hoped that work on Waterloo Bridge would be started before Christmas.

Prices of Houses.

Mr. Greenwood informed Sir K. Wood that the following statement showed the average price of parlour and non-parlour houses respectively included in contracts let by, or in direct labour schemes of, local authorities in England and Wales during recent months:—

Month. 1929.	Parlour houses. £	Non-parlour houses. £
May	406	344
June	404	355
July	377	337
August	409	348
September ...	423	347

Rent Restrictions.

Mr. Greenwood informed Sir K. Wood that it was proposed to provide for the continuance of the Rent Restriction Acts in their present form by means of the Expiring Laws Continuance Bill, which was now before the House. The question of the amendment of the Acts would receive consideration, but it would not be practicable to introduce amending legislation during the present year.

THE BUILDING TRADE

RECURRING DEFECTS: THEIR CAUSE, PREVENTION AND CURE.—XIX

By J. R. TAYLOR.

DOMESTIC WATER SUPPLIES.

[COMMENTING on the article on this subject, by Mr. J. R. Taylor, which appeared in our issue for September 27, Mr. S. Whitmore Robinson writes as follows:—"After mentioning several popular fallacies concerning hot-water supplies, he (Mr. Taylor) illustrates a boiler, cylinder and circulating pipes. As there are at least five things shown in the small picture which are utterly incorrect, I think that, for the sake of any beginners who may have hoped to glean information from it, he should have mentioned that the method of connecting the various pipes was also a 'popular fallacy,' and have shown the correct method alongside it."—ED.]

In reply, Mr. J. R. Taylor writes as follows:—

I have carefully considered Mr. Whitmore Robinson's letter, and with the exception of the use of the word "utterly," I am not disposed to quarrel with it. Put a little differently, his five points would probably have been interesting and informative, and it is at all events better in the general interests that the subject should be discussed than that architects, builders and plumbers should be charged with apathy, and compared unfavourably with the motor car producers.

Mr. Robinson leaves me a little in the dark as to his objections, but I hazard a guess that if they are disclosed they will "boil down" to an uncompromising advocacy of the ideal, as compared with the many concessions forced on us by a public that steadily refuses to pay for the best. His criticism appears to be mainly directed to the connections, of which there are eight shown on the rough sketch (I am not a draughtsman, but sketch to save words) and two implied, and it is therefore necessary to examine them in detail.

BOILER CONNECTIONS.—These, I suppose, might be eliminated, as in the sketch they are not shown at all, but in passing one may congratulate the plumbers on the fact that an old recurring defect very prevalent some thirty years ago has now almost entirely disappeared. I refer to the trapping of air in the boiler when the return union projected inside type 4 of sketch. No plumber of to-day ever makes this mistake or forgets that the flow union should have a continuation piece, or dip pipe, as it is sometimes called.

CYLINDER CONNECTIONS.—The cylinder shown is a four-union cylinder, type B, but with the primary flow entering about halfway up. In practice, for every cylinder having five or more unions, quite twenty, and probably fifty, are fixed having only four. That this is not ideal I agree, but to condemn it as "utterly incorrect" would be absurd in view of the fact that quite good results are obtained on small systems where economy is of the first importance.

PRIMARY RETURN.—This is shown in the position in general use, and as I don't suppose that it is numbered in Mr. Robinson's five or more points, I will not take up space, except to say that I do not like the idea of making it of smaller bore than the primary flow in order to retain the water in the boiler for a longer period before it passes to the cylinder, as suggested by some writers.

PRIMARY FLOW.—This is shown entering about half way up the cylinder. I have chosen this position as a compromise. If it is fixed near the top a very small quantity of hot water may be drawn off at a much earlier period than if it is fixed lower down. In the average small house, warm water is usually drawn at the sink before it is wanted in the bathroom. This may result in much annoyance, as the small quantity of hot water may be entirely drawn off, leaving nothing for the bath. If, on the other hand, it is fixed near the bottom without a continuing pipe inside the cylinder, there is considerable delay in obtaining any hot water, because the range boiler is inadequate.

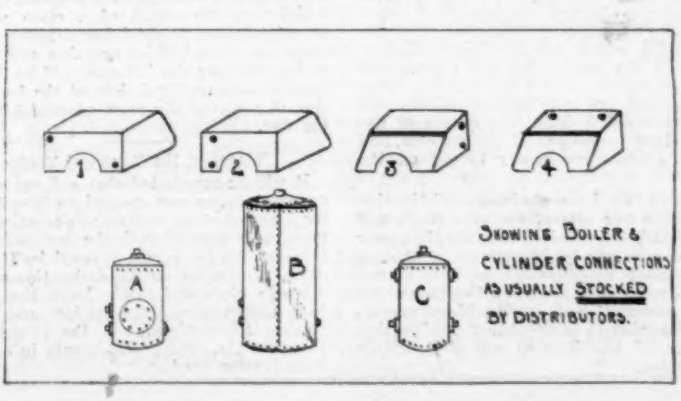
EXHAUST AND SECONDARY FLOW.—Here again compromise comes into play, and I show both the exhaust (air, or expansion) and secondary flow pipes joining the same union. I might have taken the exhaust to the highest point on the circulation, where it would best act as an air pipe, but I do not wish to move the storage cistern, and I do wish to protect the rising main and cold feed from frost. I might have taken the secondary flow off at, say, a foot below bedroom ceiling, and let it *fall* all the way until it again joins the system as a secondary return. To do so would have meant more pipe boards and possibly other troubles, but most important of all, it would interfere with the project intended to be developed in a later article as to protection against frost. I want to have all cold services accompanied by hot *circulating* services on the same pipe boards, and all the fittings looped in after the manner of radiators on a low-pressure two-pipe system, with no dead ends. I wish to do this in the most economical manner possible, and I emphasise the importance of grouping if such economy is to be obtained, as to make this practicable in a small house. In this I am convinced that I shall have Mr. Robinson's sympathetic support. I therefore propose to fix a small air release pipe on the towel rail.

THE FOURTH UNION.—We have only one union left, and to this we may connect the secondary return, or the cold feed, or both. Some writers urge that the secondary return should terminate high up the cylinder. This has some advantages on a large system having ample boiler capacity, but is of very minor importance on the small system under discussion. The small cylinder in the accompanying illustration is provisionally of seamless copper, and I do not like to connect the cold feed to it direct, because in the absence of a hand hole, a spreader cannot be fixed. With no spreader the cold water would "bore up" if two or three of the hot taps were opened simultaneously. Except on the bath, the hot taps are not likely to run for long at a time, and the shape of the average range boiler is not favourable to this boring action. Much ink has been spilt in controversy over the question of connecting the cold feed to the primary return, as shown, and in my opinion, the result is a draw. With a hand hole available, I would, however, add a fifth union, as shown in Article XVI. (October 18).

CONNECTIONS TO COLD CISTERN.—I will not suggest that these help to swell the number of Mr. Robinson's objections, but I mention them for the sake of the following observations, to which I attach some importance. The feed connection is shown a few inches up from the bottom. It is intended to have a turned down elbow or bend on the end of it; the capacity of the tank is thus reduced, but the idea is to prevent any stray chippings or other foreign bodies that may accidentally get into the tank finding their way into the cold feed pipe and then into the system. Grave troubles have at times been traced to this cause.

The capacity of the tank is still further reduced by having the ball cock union some distance down the side. Besides affording firm fixing, this allows for expansion. It is a mistake to imagine that all the expansion is accommodated in the exhaust or expansion pipe. If this were the case the pipe would require to be carried to a much greater height than is shown. Actually, the expansion, which may equal as much as one in twenty-four, pushes back the water in the cold feed pipe and raises the height of the water in the cistern. The overflow pipe is omitted for the convenience of drawing; it would not, of course, be usually omitted from the job, though I have known even this to happen.

I doubt whether we have reached finality as regards domestic water services. I have for some time been thinking the matter over with the help of small glass experimental apparatus for the purpose of observing the movements set up under differing circumstances by convection. I find it singularly elusive and full of pitfalls. I am hoping to set up a demonstration model of larger size and correct to scale, and if I am fortunate I shall hope to be able at some later date to interest readers of *The Builder* with a description.



Model Abattoir Society Lecture.

Brigadier-General Charteris will deliver the eighth Annual Benjamin Ward Richardson Memorial Lecture, under the auspices of the Model Abattoir Society, at the Royal Society of Arts, on November 11. There remains much to be done throughout Great Britain in the matter of providing and controlling slaughter-houses or abattoirs, and architects, with hygienists, desiring inspection and distribution of meat under strictly sanitary conditions should make a point of attending. Admission to the Lecture (at 5.30 p.m.) is free. No tickets are required.

THE POWERS OF WATER COMPANIES

A CASE is reported, on page 791 of this issue, in which a householder had taken out a summons against the Metropolitan Water Board for having cut off the supply of water to his house, although it was alleged that the rate had been duly paid and the pipes and apparatus were in order, the proceedings being taken under section 43 of the Waterworks Clauses Act, 1847. There is power for the authority to cut off the supply under section 16 of the Waterworks Clauses Act, 1863, if any person supplied with water wrongfully does or causes or permits to be done anything in contravention of any provisions of the special Act, or wrongfully fails to do anything which under any of those provisions ought to be done for the prevention of waste; but under section 17, for non-repair of pipes, etc., only a penalty is imposed. Although at the hearing some evidence was given that there were certain minor defects, such as bends in the roof, which had been badly done, and a stopcock in the garage which was alleged to be buckled, the first and main ground on which the Board had acted in cutting off the supply related to the gauge of the pipes and the material of which they were constructed. The pipes were of ½ in. copper 19 gauge, and the Board contended they should have been of 18 gauge, and also tendered some evidence that experiments with lead and copper tubing in freezing tended to show that lead was more satisfactory and that 18 gauge lasted longer than 19 gauge. Now, the gauge and construction of pipes are not dealt with by specific provision in the Waterworks Clauses Acts, but, this being a Metropolitan case, the Metropolis Water Acts, 1852 and 1871 applied (Acts passed before the Water Board was created), and in those Acts power is given to make regulations, and section 26 of the Act of 1852 provides that those regulations for the purpose of preventing waste or misuse of water may prescribe amongst other things the size, nature, and strength of pipes. It was alleged in this case that no regulations prescribing the gauge of pipes had ever been made, and in these circumstances the magistrates convicted the Board under section 43, but imposed a nominal penalty of £2, with a continuing penalty so long as water was not supplied. It was stated that this decision would affect a number of houses in which pipes of 19 gauge had been installed.

Some considerations arise in connection with this case which may have a bearing upon the Report recently issued by the Advisory Committee on Water. The Report of the Committee was mainly addressed to suggesting amendments in the Waterworks Clauses Acts, 1847 and 1863. There appear to be no provisions in the Waterworks Clauses Acts prescribing the nature of fittings or conferring powers to make regulations, and this omission in those Acts has been dealt with in the Report of the Committee in clause 28 of the draft clauses, which they suggest should be inserted in the Waterworks Clauses Acts. That clause provides that the undertakers may make by-laws for the purpose of preventing waste, undue consumption, misuse of water, etc., and may by such by-laws prescribe the "size, nature, materials, workmanship, and strength, and mode of arrangement, connexion, disconnexion, alteration of pipes," etc.; but if this procedure is adopted, a question may still arise under the Waterworks Clauses Acts as to whether contravention of such by-laws will entitle the undertakers to cut off the supply of water. Section 54 of the Waterworks Clauses Act, 1847, gives such a power where by the special Act it is provided that the water to be supplied need not constantly be laid on under pressure, and where the person supplied, when required to do so, neglects to provide a proper cistern supplied with a ball and stopcock, or allows such cistern and ball and stopcock to fall out of repair; but section 16 of the Act of 1863 is in more general terms giving power to cut off the supply "if any person supplied with water by the undertakers does or causes or permits to be done anything *in contravention of any of the provisions of the special Act*, or wrongfully fails to do anything which under *those provisions* ought to be done for the prevention of waste, misuse, undue consumption," etc. The next section, 17, only imposes a penalty where pipes, etc., are allowed to be out of repair.

It will be seen that section 16 only applies where a breach of the special Act has been committed, and if the suggestion of the Committee is adopted of prescribing the nature of the pipes and fittings by by-law, the power to cut off the supply conferred by section 16 may not apply to those by-laws. Under the by-laws suggested, the undertakers will be able to prescribe the nature of the fittings and to forbid the use of apparatus tending to cause waste, and to enter the premises and replace fittings and to recover penalties, but it appears to us no right will be conferred upon them to cut off the supply. In the Report, in paragraph 88, the Committee refer to section 16 of the Waterworks Clauses Act, but state that no alteration is suggested, and the section is appended in their proposed clauses as it stands. The paragraph is as follows: "The general power to disconnect the supply where the provisions of the Act are contravened, or where the provisions relating to the protection of water are not conformed to, is already included in the Act of 1863 (section 16). No alteration is suggested, and the section is appended as it stands." We do not know whether the point we are now making was brought to the attention of the Committee, but we venture to think it is deserving of consideration. Whether that power is necessary or desirable in that connection is a point upon which we express no opinion.

It may be interesting to see how the matter stands under the Metropolitan Water Acts, 1852 and 1871, these Acts not being referred to in the Report of the Committee. Those Acts applied originally to certain Metropolitan water companies specified in section 3 of the Act of 1871, and those Companies were transferred to the Metropolitan Water Board by the Metropolis Water Act, 1902, under which certain sections were repealed, but the sections material to this question remain in force.

Under section 27 of the Act of 1871 there is power, where there is a constant supply, to prescribe fittings: "prescribed" means prescribed by regulations under section 26 of the Act of 1852, which enables the size, nature and strength of pipes, etc., to be prescribed and interdicts any arrangements and the use of pipes, etc., which may tend to waste or misuse, and under section 29 of the Act of 1871, if any owner or occupier upon whom notice has been served to provide prescribed fittings makes default the Company may provide them and recover the expenses, and under section 25 of the Act of 1852, and 32 of the Act of 1871, where any provisions of *these Acts* or of the special Act are contravened there is power to cut off the supply. Thus if the fittings are once prescribed, the use of unauthorised fittings is a breach of one of the actual provisions of the statutes, and as such confers the power to cut off the supply.

We hope we have made the distinction between the two sets of statutes clear, and shown that if it is desired to grant the power to cut off a supply for the misuse of fittings, the proposed amendments of the Waterworks Clauses Acts made by the Committee will not accomplish that end without amendment of section 16 of the Act of 1847 so that a breach of the by-laws may fall within that section.

BOOK REVIEWS

Everyday Science for Architects and Builders. By A. M. GILES, B.Sc., A.I.Struct.E., A.M.I.E.E. (London: *The Builder*, Ltd., Catherine-street, and York-street, Aldwych, W.C.2.) Price 5s. net.

The series of articles on "Everyday Science for Architects and Builders," by Mr. A. M. Giles, which appeared last year in *The Builder*, aroused so much interest that it was decided to republish them in book form, and the volume containing them has just been issued. In a Foreword which he contributes to it, Mr. T. P. Bennett, F.R.I.B.A., emphasises the important position which science has now acquired in building. "Lighting, heating, water, electricity, ventilation, acoustics and synthetic materials are all used daily in building, and all obey scientific laws. These laws must be known by every user if he is to equip his building with real knowledge and intelligence." It is the clear elucidation of these laws at which the author aims, and very successfully does he accomplish his purpose. A physicist of considerable attainment and a teacher of many years' experience, the author has acquired the rather rare faculty of explaining scientific and sometimes abstruse matters in an interesting way, easily understandable even by those who have little real scientific knowledge or bent. In a series of twenty-two chapters he deals briefly but luminously with the principles of a hundred and one different matters, the practical application of which enters regularly into everyday architectural and building practice. Each subject is illustrated by clearly drawn diagrams. Well printed and bound, the book should appeal not only to the student but to architects and builders who wish to "brush up" or enlarge their knowledge of practical building science.

Pre-Cast Concrete Factory Operation. By H. L. CHILDE. (London: Concrete Publications, Ltd., 20, Dartmouth-street, Westminster, S.W.1.) 3s. 6d. net.

The concrete products and cast-stone industry has grown so rapidly within recent years that an authoritative book on the subject, setting forth all the latest developments in apparatus, manufacturing processes, etc., had become a clear necessity. The book under notice should be assured of a ready welcome by all who are interested in this new and flourishing industry. It consists, broadly, of some twenty illustrated descriptions of typical concrete products and cast-stone factories and of the processes carried on within them, together with a chapter on factory design and lay-out. The factories dealt with range from large to small, and together embrace every type of pre-cast concrete article now manufactured. The book is essentially practical in character, the text, which is clearly written, being reinforced by a large number of photographic and diagrammatic illustrations. Every stage in the manufacture of a great variety of products is carefully described, and the author gives scores of useful "tips" which are the result of a close personal acquaintance with the inner workings of the industry. Any builder or other person proposing to enter the industry will find in this book the accumulated data of the best practice of some of the most successful firms of the day.

Wages in the Electrical Trades.

It will be recollected that a 5 per cent. increase in wages was granted on May 1, 1929, for a period of six months; this period of six months terminated with the last pay day in October, for the period covered by that pay-day, as indicated by the declaration of wages recently circulated. We learn that it has been agreed to continue the increase, pending further negotiations, and the present rate, therefore (1s. 10½d.), will remain in operation until further notice.

NEW BUILDINGS IN LONDON

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *office not later than Tuesday evening.*

Acton.—REBUILDING.—The London Co-operative Society's premises at 76-77, South-parade, are to be reconstructed and a new butchery department erected. Plans have been prepared by Mr. A. Hulbert, Works Manager of the Society, 54, Maryland-street, Stratford, E.15.

Barking.—DEPOT.—Messrs. Russian Oil Products, Ltd., of Moorgate Hall, Moorgate, E.C.2, are erecting a new large oil storage depot. The building contract has been let to Messrs. J. Lysaght, Ltd., of Bristol. Excavation work and concreting has been let to Messrs. Intrade, Ltd., of 22, Abbey-road, Barking, E.

Bow. — FACTORY. — A large factory for Messrs. B. J. Friend and Co., of 25a, Morgan-street, E.3, is shortly to be commenced. Plans have been prepared by Mr. E. A. Remnant, A.R.I.B.A., 504, Abbey House, Victoria-street, S.W.1.

Brewer-street. — REBUILDING. — The old building on the site of No. 11 is being demolished by the Greenham Demolition Co., Ltd., of London-road, Isleworth, preparatory to the erection of a large restaurant with workrooms and offices above. Messrs. Forbes and Tate, FF.R.I.B.A., architects, 97, Jermyn-street, S.W.1, have prepared the plans for this reconstruction scheme.

Canning Town.—STORES.—The London Co-operative Society, Ltd., 54, Maryland-street, Stratford, E.15, is to erect new premises at 64, Pretoria-road. The plans have been prepared by the Works Manager, Mr. A. Hulbert.

Chiswick.—BATHS.—The U.D.C.'s Surveyor has submitted a plan for the construction of an additional open-air bath adjoining the existing bath in Edensor-road. The scheme provides for an additional bath, 75 ft. long and 35 ft. wide, the estimated cost amounting to £4,900.

Chiswick.—FACTORY.—The Chiswick Polish Co., Ltd., are to erect a new factory in Burlington-lane, W.3. The new building has been planned by Mr. A. Alban H. Scott, F.R.I.B.A., 13, Old-square, Lincoln's-inn, W.C. Messrs. George Bollom and Sons, Ltd., of 1a, Essex-road, Acton, W.3, are the contractors.

Cornhill. — CONVERSION. — The Midland Bank, Ltd.'s, premises are to be entirely reconstructed. The contract has been let to Messrs. Walter Lawrence and Sons, Ltd., of 31, Sun-street, E.C.2. Plans for the conversion scheme have been prepared by Messrs. Easton and Robertson, architects, 36, Bedford-square, W.C.1.

Croydon.—It is proposed to erect a new St. Mary's Maternity Hostel. The scheme is promoted by the Croydon Mothers' and Infants' Welfare Association. Plans and specifications have been prepared by Mr. G. F. Carter, Borough Surveyor. The new building is estimated to cost £13,250.

Denmark-street.—REBUILDING.—Premises at the corner of Denmark-street, W.C.2, have been demolished by St. Mary's Wharf, Ltd., of Paddington, to make way for new premises to be erected by Messrs. Truman Stevens, Ltd., builders, of 49, South Molton-street, W. The architects are Messrs. Constantine & Vernon, F. & A.R.I.B.A., of 82, Mortimer-street, W.1. The steelwork is being supplied by Messrs. Lindsay's Paddington Iron Works, Ltd., 15, North-side, Paddington Basin, W.2.

Deptford.—WORKSHOPS. — Extensions are being made to the machine shops of Messrs. Molin's Machinery Co., Ltd., by Messrs. Sawyer & Son, Ltd., builders and contractors, to the plans prepared by Mr. L. H. Bucknell, A.R.I.B.A., architect, 104, Great Russell-street, W.C.1. The constructional steelwork is being supplied by Messrs. Young & Co., 6, Queen Anne's-gate, Westminster, S.W.1.

East Ham.—EXTENSIONS.—A scheme of alterations and extensions is to be put in hand at the Isolation Hospital. Plans have been prepared by Mr. A. T. Bridgewater, Borough Surveyor.

Eltham.—SCHOOL.—For the erection of an elementary school in Henwick-road, Eltham, the London County Council has, at £29,914, accepted the tender of Messrs. W. H. Gaze & Sons, Ltd., 23, High-street, Kingston-on-Thames.

Great Portland-street.—SHOPS.—The erection of a large block of shops, offices and showrooms is shortly to be commenced. Messrs. G. E. Wallis and Sons, Ltd., of Medway House, Old Cavendish-street, W.1, are the contractors. The new building has been planned by Messrs. Robert Angell and Curtis, architects, 133, Regent-street, W.1.

Gunnersbury.—FACTORY.—Messrs. Tecalemit, Ltd., of 116, Scrubbs-lane, N.W.10, are to erect a new factory. The site is on the Great West-road.

Hackney-road.—STORES.—Stores are to be erected at 273 for the London Co-operative Society, Ltd., 54, Maryland-street, Stratford, E.15.

Ilford.—HOSPITAL.—The erection of the first section, a mortuary block, of the new King George's Hospital is shortly to be put in hand. The contract has been let to Messrs. Hammond and Miles, Ltd., of Scrafton-road-works, Ilford. The entire scheme is estimated to cost £200,000. Messrs. C. J. Dawson Son and Allardyce, of Clock House-chambers, Barking, are the architects.

King-street.—ALTERATIONS.—Are to be carried out at King's House to the plans prepared by Messrs. M. E. and O. H. Collins, architects, 115, Old Broad-street, E.C.2. The contract has been let to Mr. C. R. Price, 107, Bishopsgate, E.C.2.

Lambeth.—FLATS.—An extensive housing scheme is to be carried out by the Ecclesiastical Commissioners, of 1, Millbank, S.W.1. A site abutting on Wilcox-road, Wandsworth-road and Hartington-road is to be developed. New flats are to be erected. The plans are to be prepared by Messrs. Clutton, the estate agents, 5, Great College-street, S.W.1.

Lewisham. — SCHOOL. — A new open-air school is to be erected on the Downham estate, Lewisham. The tender of Messrs. Burnand & Pickett, Ltd., Wallington, Surrey, has been accepted by the London County Council for the work. Their tender amounted to £4,410.

Lewisham.—PREMISES.—Messrs. H. & J. Taylor, Ltd., builders, 177, Lewisham-road, S.E.13, are erecting premises in Verdant-lane.

Little Trinity-lane.—The Painters' Co. are to spend £10,000 on the rebuilding of the south wall of their ancient hall. The honorary architect to the company, whose office is at Painters' Hall-chambers, Little Trinity-lane, E.C.4, is Mr. H. D. Searles-Wood, F.R.I.B.A.

Marylebone.—FLATS.—A large block of flats is to be erected in Seymour-place, W.1. The old block of property, covering 34, 36 and 38, is now being demolished by Messrs. W. Marshall, Housebreakers and Contractors, Ltd., Nungate, Peckham, S.E.15. The architects for the scheme are Messrs. Joseph, 2, St. Paul's Bakehouse-court, E.C.4.

Mile End.—PREMISES.—The L.C.C. has given consent to the erection of a building at 103, 105 and 107, New-road, Mile End, to plans submitted by Mr. H. V. Kerr, architect and surveyor, 22, Old-square, Lincoln's Inn, W.C.2, on behalf of Mr. M. Levy.

New-street.—BUILDING.—A block of receiving offices for the Western's Laundry Co., Ltd., are to be erected on the site of old buildings now being demolished at 20, New-street, St. Martin's-lane, W.C.2. A contract has been signed for the building work with Messrs. R. M. Pearson, 63, Dean-street, W. The architect is Mr. H. J. White, 405, Holloway-road, N.7.

Paddington.—PAVILION.—The Paddington Borough Council has accepted the tender of Messrs. Ebenezer King, Ltd., 27, Whitefriars-street, E.C., for the erection of a new pavilion and the execution of contingent works at the Paddington Recreation Ground.

South Kensington.—BUILDING.—It is proposed to erect a new building for the Museum of Practical Geology. The new structure is to replace the existing building in Jermyn-street, Piccadilly, W. The plans have been prepared by H.M. Office of Works under the supervision of the Chief Architect, Sir R. J. Allison, F.R.I.B.A.

Strand. — IMPROVEMENTS. — Large alterations and improvements will shortly be carried out at the Hotel Cecil, Strand, W.C.2. The ballroom will be modernised. New lighting effects will be introduced, and the scheme of decoration completely transformed. The bedroom accommodation will be improved by the addition of numerous bathrooms, and other changes are contemplated. Messrs. Campbell Bros., Ltd., of 28, Albert-embankment, S.E.11, have been instructed to carry out the interior decorations. No contract for the building work has yet been let, we understand.

Strand.—REBUILDING.—Messrs. Rice & Son, Ltd., 15, Stockwell-road, S.W., have secured the contract to the plans of Messrs. Trehearne & Norman, Windsor House, Kingsway, W.C.2, the architects for the rebuilding of 376-379, Strand, W.C.2. Shops and offices are to be erected on the site. The building is to be called "Manfield House."

Streatham.—SCHOOL.—The London County Council has accepted the tender of Messrs. G. H. Denne & Son, Ltd., 24-27, High Holborn, W.C.1, for the erection of an elementary school on the Streatham Vale housing estate. The price of the tender was £29,887.

West Twickenham.—STATION.—The erection of a new station on the Redway estate is proposed by the Southern Railway Co. The plans have been prepared by the Chief Engineer.

CONTRACTS PLACED

Coventry.—PREMISES.—Messrs. Montagu Burton are to have new premises at the junction of Broadgate and Smithford-street. The architect is Mr. Harry Wilson, of 81, North-lane, Roundhay, Leeds. Messrs. W. H. Jones & Sons, Ltd., of Lockhurst-lane, Foleshill, have secured the contract.

Guildford. — EXTENSION. — The Guildford Town Council have been asked by the Electricity Committee to approve an extension scheme at the Generating Station, estimated to cost £50,550. The committee has received a tender, by Messrs. C. A. Parsons & Co., Ltd., Newcastle-on-Tyne, amounting to £47,647, for carrying out the extension. The scheme has been approved.

Hounslow.—EXTENSIONS.—Considerable extensions are to be made to the hospital in Staines-road. The contractor is Mr. W. Lacey, builder, Staines-road, Hounslow. The work has been planned by Mr. A. A. H. Scott, architect, of 13, Old-square, Lincoln's Inn, W.C.2.

Plymouth.—RECONSTRUCTION.—The London Furnishing Company's premises are to be reconstructed. The contract has been placed with Messrs. A. M. Coles & Son, Ltd., of Queen Anne's Battery. The scheme has been planned by Mr. L. F. Vanstone, L.R.I.B.A., of 118 and 119, Tavistock-road, Plymouth.

Smethwick. — SCHOOL. — The Smethwick Town Council has decided to accept the tender of Messrs. Richard Fenwick, Ltd., of Birmingham, for the erection of the new school at the Uplands at £60,000. It was mentioned that a previous estimate for £57,747 which was accepted had been withdrawn. Mr. George Randle, of 116, High-street, Smethwick, is the architect.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aldershot	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Alfreton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alnwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashford Kent	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ashington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aylesbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Aylsham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Banbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Barnstaple	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Basingstoke	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
Berwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/9	1/10	1/9	1/9	1/9	1/3
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bradford-on-Avon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Braintree	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Breatwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bridlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bromsgrove	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bungay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Buxton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Canterbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Carlisle	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chorley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cirencester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Clacton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cranbrook	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Devizes	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dewsbury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dorchester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dorking	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Driffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Droitwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ely	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Exeter	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Exmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Fakenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Felixstowe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Glossop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gosport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harpenden	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hednesford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hereford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Herne Bay	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hunstanton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Huntingdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Isle of Wight	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
King's Lynn	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leighton-Buzzard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Littlehampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Liverpool	1/9	1/9	1/9	1/10	1/9	1/9	1/9	1/3½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London:								
12 m. radius	1/9	1/9	1/9	1/9	1/9*	1/9	1/9	1/3
12-15 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/3½
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lowestoft	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Malvern	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Matlock	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Melton Constable	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Melton Mowbray	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newark	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-ur-Lyme	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
New Forest	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Nuneaton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Redditch	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ripon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sawbridgeworth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Saxmundham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sevenoaks	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stevenage	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stowmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Stratford-on-Avon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stroud	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swaffham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Tamworth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Taunton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Thetford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Torquay	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Trowbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wallsend	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warminster	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wells (Norfolk)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Weston-sup.-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Whitby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Woodbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/6	1/6	1/6	1/6	1/6	1/6	1/4½	1/0½
Worthing	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wrexham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wroxham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wymondham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 802.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk T.C.; County Engineer, C.E.; County Surveyor. C.S.; County Architect, C.A.; Surveyor, S. Engineer E.: Borough Architect. B.A.: Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

NOVEMBER 11.

Arbroath.—Installation.—Electric light and power at high and technical schools, for Forfarshire E.C. Begg, Peebles & Shaw, consulting engineers to Authority, 27, Rutland-sq., Edinburgh.

Bromley, Kent.—Hospital Buildings.—Erection of the first portion of a block for the accommodation of the nursing staff at the Hospital at Locksbottom, Farnborough, Kent, for the Guardians of the Bromley Union. F. Danby Smith, F.R.I.B.A., Parliament-mansions, Victoria-street, Westminster, S.W.1. Dep. £5.

Edinburgh.—Plumbing.—At Craigleith Hospital, for P.C. J. M. Johnson, F.R.I.B.A., 47, Charlotte-st., Leith.

Forehoe.—Cottages.—3 pairs at Northfield, Wymondham, and 3 pairs of cottages at Norwich-rd., Easton, for R.D.C. L. Standley, clerk, Council Offices, Wymondham, Norfolk. Dep. £1.

Godalming. — Cottages.—Forty-four non-parlour, for T.C. G. B. Hartfree, B.S.

Gravesend.—Redecorating.—Internal redecorations at Town Hall, for T.C. F. T. Grant, B.E. and S., 5, Woodville-ter., Gravesend.

Heywood.—Alterations.—At St. John's C. of E. School, Siddall-st., for E.C. J. T. Pearson, secretary of education.

Keighley.—Improvements.—Foundation work and concrete flooring; steel framed superstructure and sheeting, at new transport depot, Hardings-lane, for T.C. E. G. Felgate, A.R.I.B.A., Borough Architect. Dep. £1 1s.

Lambeth.—Dwellings.—Construction of a block at China-walk Estate, Lambeth, for the L.C.C. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Dep. £2.

Liverpool.—Demolition.—Of Anderton Hall, Anderton, near Chorley, for T.C. T.C., 55, Dale-st. Dep. £1 1s.

Louth.—New Boys' School.—Erection of, at Louth, Lincolnshire, for the Governors of the King Edward VI. Grammar School, Louth. S. Phillips Dales, F.R.I.B.A., 63, High Holborn, London, W.C.1; also at Harold S. Hall, L.R.I.B.A., 32a, Old Market-place, Grimsby. Dep. £4.

Lydd.—Houses.—6 in Station-rd. E. A. Jackson, L.R.I.B.A., chartered architect, Ashford.

Manchester.—Tiling.—Wall-tiling to first-class plunge bath at Gorton baths, for T.C. City Architect. Dep. £1 1s.

Rhynie.—Hospital.—Erection of the Nicoll Hospital, Rhynie, Aberdeenshire, for Trustees. T. Scott Sutherland & Taylor, chartered architects and surveyors, 9, The Square, Huntly.

Salford.—Dismantling.—Also removal of brickwork and ironwork, etc., in and about Lancashire Boilers at Frederick-rd. power station, for T.C. City Electrical Engineer, Electricity Offices, Frederick-rd.

Stockton-on-Tees. — Houses. — Erection of 189 houses on the Primrose-hill estate, Durham-road, for the Stockton-on-Tees Corporation. George P. Stainsby, A.R.I.B.A., 25, High-st., Stockton-on-Tees. Dep. £2 2s.

Sunderland.—Painting.—Also renovation of St. Cuthbert's Church, Monkwearmouth. W. G. Baston, hon. secretary, Parochial Church Council, 9, Ripon-st.

Thurnscoe.—Conversion.—Of 34 privies into water closets at 1-8, Grange-ter., 1-9, Clarence-ter., 1-17, Lidget-lane, and 39-55, Lidget-lane, for U.D.C. F. O. Brookes, Sanitary Inspector, Thornley-crescent.

Twickenham.—Houses.—Erection of 104 houses, and seven blocks of flats, comprising 48 tenements, on the Fulwell Farm site, situate between Fifth and Sixth Cross-roads, Twickenham. Gilbert R. King, Borough Engineer and Surveyor, Municipal Offices, Twickenham. Dep. £2 2s.

York.—Painting.—At Infants' Home, Hull-rd., and Children's Homes, 68, Wigginton-rd. and 120, Haxby-rd., for B.G. G. Sykes, clerk.

NOVEMBER 12.

Abertillery.—Wall.—Rebuilding of portion retaining wall, County School, for Monmouthshire E.C. J. Bam, F.R.I.B.A., County Hall, Newport. Dep. £2 2s.

Beetle.—Bungalow.—In grounds of Maghull Sanatorium, Maghull, for C.B. B.E.

Crawley.—Telephone Exchange.—Extension of, at Crawley, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Edinburgh.—Offices.—Police garage and offices in Cowgate, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

Glasgow.—Schools.—Temporary schools at South Carntyre and Great Wellington-st., for E.C. R. Burns, Executive Officer. Dep. £2 2s.

Halifax.—Factory.—Blouse factory in Clare-rd. Wm. Hall, chartered architect, 10, Commercial-st.

Limerick.—Installation.—Electric lighting, for entire buildings comprising Mental Hospital, for Committee. Wm. O'Shaughnessy, clerk.

Motherwell.—Alterations.—Also extension of post office and telephone exchange, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh.

Preston.—Houses.—119 and 109 houses at Deepdale, for C.B. B.E. and S. Dep. £1 each.

Quarry Bank.—Houses.—42 non-parlour, at Coppice-lane, for U.D.C. A. Homfray, clerk. Dep. £2 2s.

Wednesbury. — Improvements. — Demolition 12 houses and all out-buildings connected therewith, situate at Hall End, Wednesbury, and erection 12 non-parlour type houses, for T.C. A. Booth, B.E. and S. Dep. £2 2s.

NOVEMBER 13.

Birmingham.—Centre.—Maternity and child welfare centre at Allen's Cross Far estate, Northfield, for T.C. Collier & Keyte, architects, 30, Paradise-st. Dep. £1 1s.

Durham.—Painting.—Also renovation of Chopwell East, Crookhill, Dunston, High Spen senior mixed and Swalwell Council schools (internal and external), and Winlation Council school (internal only), for County E.C. E. R. Sarsfield, District Clerk, District Education Office, Lloyds Bank-cham., Blaydon-on-Tyne.

London.—External Painting and Decorating Work.—To the housing estate at East Dulwich, for the Camberwell B.C. William Bell, Borough Engineer and Surveyor, Town Hall, Camberwell, S.E.5.

Nelson.—Employment Exchange.—Erection of, at Nelson, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s

Plymouth.—Painting.—At Poor Law Institution, for B.G. W. H. Davy, clerk, Greenbank House.

Stoke-on-Trent.—Demolition.—Also removal of factory premises, High-st., East Fenton, for T.C. City S. Dep. £1.

Stoke-on-Trent.—Repairs.—To houses at Hanley and Stoke, for Corporation. E. B. Sharpley, T.C.

Swallownest.—Installation.—Of electric light at Swallownest Hospital, for South Rotherham and Kiveton Park District Isolation Hospital Committee. A. H. Styring, clerk, 6, North Church-st., Sheffield. Dep. £1 1s

Wallasey.—Painting.—Internal, of 42 council houses, situate on Mill-lane site, for C.B. B.E. Dep. £1 1s.

Woolwich.—Casualty Ward and Out-Patients' One-story Building.—Erection of, at the Plumstead and District Hospital, Plumstead High-st., S.E.18, for the Guardians of the Woolwich Union. Whincop & Channer, 47, Thomas-st., Woolwich, S.E.18.

NOVEMBER 14.

Belfast.—Premises.—At North-st. and Union-st. H. Gault, architect and civil engineer, 13, Donegall-sq. North, Belfast.

Derby.—Public Baths.—Erection of, in Queen-st., Derby, for the Derby Corporation. C. H. Aslin, A.R.I.B.A., Borough Architect, Municipal Offices, Babington-lane, Derby. Dep. £1 1s.

Harrow-on-the-Hill.—Fencing.—Consisting partly of iron railings and partly of chain link, at Roxeth Recreation ground, for U.D.C. J. P. Bennetts, E. and S.

Harrow-on-the-Hill.—Convenience.—At Roxeth recreation ground, for U.D.C. J. P. Bennetts, E. and S.

Hull.—Alterations.—Also additions to mental hospital, Willerby, for provision of cinematograph apparatus, for T.C. D. Harvey, A.R.I.B.A., City Architect.

Langdon Hill.—Extension.—To children's sanatorium, for West Ham B.C. B.E. Dep. £1.

London.—Asphalt Tennis Court.—Construction of, in the grounds of the Bethnal Green Hospital, Cambridge-rd., E.2, for the Bethnal Green Board of Guardians. C. Faulkner Jones, Clerk, Guardians' Administrative Offices, Bishop's-rd., Bethnal Green, E.2.

Nottingham.—Public Washhouses.—At Noel-st., Muskham-st., Willoughby-st., for T.C. T. Wallis Gordon, City E. and S. Dep. £1 each.

Salford.—Bungalow.—At Maternity Home, Seedley-ter., Pendleton, for T.C. City E.

Southwell.—Cottage.—For sewage works manager, at Bilsthorpe, for R.D.C. Sands & Walker, Miltonchams., Nottingham.

NOVEMBER 15.

***Epsom.**—Heating.—Installation of new heating apparatus in a portion of the Hospital at the Poor Law Institution, for the Epsom Board of Guardians. J. Roger Preston, Consulting Engineer, 7, Southampton-st., Bloomsbury-sq., London, W.C.1. Dep. £2 2s

Pateley Bridge.—Houses.—Eight stone-faced scullery type, in Greenwood-av., for R.D.C. E. Moorhouse, clerk.

NOVEMBER 16.

Borrisokane.—Building.—Building of David Clarke Memorial Hall, Borrisokane, Co. Tipperary. T. J. Cullen, architect, 25, Suffolk-st., Dublin. Dep. £2 2s.

Cheadle and Gatley.—Conversion.—Privies to water carriage system at several properties, for U.D.C. —. Hayes, sanitary inspector, 19, High-street. Dep. £1 1s.

Crook.—Painting.—Painting and renovating of Council schools at Peases West (mixed); Helmington-row (mixed and infants); Hamsterley; Oakenshaw; Tow Law (senior mixed); Fir Tree; Frosterley North; Stanhope; Westgate and the District Office, for County Durham E.C. H. James, district clerk, Education Office, Wesley-st., Crook.

Devon.—Building.—At Bradaford farm, Virginstow, for Small Holdings Committee. County Architect's Office, 97, Heavitree-rd., Exeter.

Gravesend. — School Furniture. — Tenders for supply of 26 classrooms, handicrafts, laundry and cookery sections, etc., for the Gordon (New) School, for the Gravesend E.C. Borough Architect (J. G. Bennett), 5, Woodville-terrace, Gravesend.

Rochdale.—Painting.—In Borough Surveyor's drawing office, for C.B. B.S.

Southend-on-Sea.—Fences.—Boundary fences and gates at Southchurch Hall and incidental works in connection thereto, for C.B. R. H. Dyer, B.E. and S. Dep. £1.

NOVEMBER 18.

Bolton.—Building.—Baths and washhouses in Rothwell-st., for C.B. B.E. and S. Dep. £2 2s.

Glasgow.—Installation.—Electric lighting, at Shieldhall Hospital, for T.C. General Manager, 75, Waterloo-st., C.2.

Glasgow.—School.—Of Trades school, Shamrock, for T.C. R. Burns, Executive Officer. Dep. £2 2s.

Hemsworth.—Extensions.—At secondary school for West Riding E.C. Education Officer, County Hall, Wakefield.

London.—Various Works.—Construction of an engine house, additions and alterations to existing buildings, pavings, drainage and contingent work at the Woodford Pumping Station, Forest-rd., Woodford, Essex, for the M.W.B. Chief Engineer, 173, Rosebery-av., E.C.1. Dep. £10, to Accountant.

***London.**—Coal Bays.—Demolition of existing and construction of new coal bays in concrete and brickwork to accommodate approximately 1,200 tons of coal at the Green-lanes pumping station, Green-lanes, Finsbury Park, N., for the Metro. Water Board. Chief Engr. (Room 201), 173, Rosebery-av., E.C.1, on production of receipt from the accountant for a deposit of £5.

Preston.—Houses.—22, in Fishwick-parade, for C.B. B.E. and S. Dep. £1.

Rugby.—Houses.—16 in 4 pairs and 2 blocks of 4, at Dunchurch; 8 in 2 blocks of 4 at Newton; 8 in 2 blocks of 4 at Bretford, for R.D.C. J. F. Weeks, S. Dep. £1 1s.

Stalybridge. — Extension. — Hartshead power station, Stalybridge, for Stalybridge, Hyde, Mossley, and Dukinfield Tramways and Electricity Board. W. H. George & Son, architects, 7, Warrington-st., Ashton-unde-Lyne. Dep. £2.

Thorne.—House.—Caretaker's house at Grammar school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Woodford.—Underpinning.—Of foundations of houses on Council's Housing estate, Snakes-lane Woodford-green, for U.D.C. A. D. Ward, E. and S Dep. £2 2s.

York.—Houses.—100, parlour, on Burton Stone-lane estate, for T.C. F. W. Spurr, City E. Dep. £2 2s.

NOVEMBER 19.

Acton.—Heating.—Accelerated low-pressure hot water heating at "Acorn" telephone exchange, for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-st., S.W. Dep. £1 1s.

Cholsey.—Wiring.—34 houses at Cholsey, Berks, for electric lighting, for Wallingford R.D.C. P. C. A. Slade, clerk.

Hinckley.—Pump House.—In connection with Coventry-rd. sewage works, for U.D.C. J. S Featherston, E. and S.

London. — Painting, etc. — At (1) "Cornwall House," Stamford-st., S.E.; (2) "Dudley House," Endell-st., W.C., for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1 Dep. £1 1s. in each case.

***Plymouth.**—School.—Erection of a new elementary school, to accommodate 800 children, and clinic at North Prospect, Plymouth, for the City Council. J. Wibberley, City Engineer and Surveyor and Architect, Sun-buildgs., Plymouth. Dep. £5 (payable to City Treasurer).

Tottenham. — Convenience. — Erection of, in High-rd. (Coombes Croft House site), Tottenham, for the U.D.C. Engineer to the Council, Town Hall, Tottenham, N.15. Dep. £2.

NOVEMBER 20.

Bristol.—Telephone Exchange.—Erection of, at Whitechurch, Bristol, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

London.—Painting, Cleaning, etc.—Painting to kitchen and bakery, cleaning and whitening and distempering to laundry block, etc., at St. Marylebone Hospital, Rackham-st., W.10, for the Board of Guardians of St. Marylebone. Frederick W. Shenton, F.R.I.B.A., 27, Fitzroy-st., W.1. Dep. £1 Treasury Note.

Morley.—Building.—Small transformer station in Albert-rd., for T.C. F. Turner, B.E.

NOVEMBER 21.

***Blackburn.**—Houses.—Erection of 194 (under five contracts) on the Whitebirk-rd. and Hamilton-

street sites, for the Blackburn C.B. H. M. Webb, Borough and Water Engineer, Town Hall, Blackburn. Dep. £1.

Wick.—Extensions.—Also alterations Wick wireless station, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh. Dep. £1 1s.

Winton, Bournemouth.—Telephone Exchange.—Erection of at Winton, Bournemouth, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

NOVEMBER 22.

Bristol.—Houses.—St. Anne's housing site, 46 houses; Horfield-court Housing site, 52 houses, for T.C. L. S. McKenzie, City E. and S., Housing Department, 51, Prince-st. Dep. £1.

Prescot, Lancs.—Telephone Exchange.—Erection of, at Prescot, Lancs, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

NOVEMBER 23.

Castle-Douglas.—Houses.—4 blocks of 4-apartment houses, having 2 houses to each block, at Laurel Bank, for T.C. D. Flett, architect and surveyor, 22, King-st.

NOVEMBER 25.

***Hendon.**—Building.—Erection of a child welfare centre and school clinic at The Broadway, West Hendon, for the Hendon U.D.C. Leonard Worden, Clerk, Town Hall, Hendon, N.W.4. Dep. £4 4s.

NOVEMBER 26.

***Matlock.**—Alterations and Additions.—To the post office and telephone exchange, Matlock, for the Commissioners, H.M.O.W. Contracts Branch King Charles-st., London, S.W.1. Dep. £1 1s.

NO DATE.

Bradford.—Adapting.—For building and joinery required to adapt Poor Children's Mission (north wing) for use as cinema. F. J. Hudson, 63, Thurnscoe-rd.

Chichester, etc.—Caretaker's cottage to Secondary School for Boys, Chichester, and also a caretaker's cottage to High School for Girls, Worthing, for West Sussex C.C. H. P. Roberts, County Architect ,North-st., Chichester.

***Didcot.**—Works and Repairs.—War Department Contract (Contract No. 5) (W.D. Schedule of Prices for works and repairs to Builders, 1925), for the Secretary of State for War. D.C.R.E. Didcot, R.E. Office, R.A.O. Dépôt, Didcot, Berks.

Doncaster.—Painting.—4 houses, Doncaster-rd Darfield. Crowther, Fenwick, Doncaster.

Dundee.—Mason Work.—At corner Arbroath-rd. and Dalgleish-rd., for T.C. G. Baxter, City E.

Dundee.—Roofs.—Reslating stable roofs at Dock-st. premises, for T.C. G. Baxter, City E.

Nether Denton.—Alterations.—To doors of Taylor Institute, Lozg-row, for P.C. T. Bulman, clerk, 19, Aglionby-st., Carlisle.

Oldham.—Verandah.—At "N" block at Institution, for B.G. C. T. Taylor, Roberts & Bowman, architects, 10, Clegg-st.

Rothwell.—Repairs.—Also improvements to head teacher's house, at Carlton Council school, for West Riding, E.C. P. Beaumont, W.R. Education Office, 8, St. John's North, Wakefield.

MATERIALS, etc.

NOVEMBER 12.

Barnes.—Concrete Flags, etc.—For U.D.C. F. P. Kindell, Assoc.M.Inst.C.E., E. and S.

NOVEMBER 13.

Cambridge.—Road Materials.—For T.C. A. E. Peake, C.S.

Warwick.—Granite Chippings.—For R.D.C. Surveyor, 35, Oxford-st., Leamington Spa.

NOVEMBER 15.

London.—Builder's Materials.—For Wandsworth B.C. D. A. Nicholl, T.C.

NOVEMBER 16.

East Sussex.—Road Materials.—For C.C. H. E. Lunn, C.S.

NOVEMBER 18.

Dublin.—Building Materials.—For Gt. Northern Rly. (Ireland), Ltd. F. C Wallace, secretary, Amiens-st. Station.

NOVEMBER 19.

Wealdstone.—Tarmacadam.—For U.D.C. H. Walker, S.

NOVEMBER 20.

Hull.—Paving Blocks.—300,000 paving blocks, 4 in. by 3 in. by 9 in., cut from 3rds Leningrad or equal redwood, and creosoted 8 lb. per cubic foot, for T.C. T. Thomas, City E.

Turton.—Setts.—1,300 tons of 5-in. by 4-in. Welsh granite setts, for U.D.C. V. W. Laithwaite, S.

NOVEMBER 23.

Gloucestershire.—Highway Materials.—For C.C. C.S.

NOVEMBER 25.

Northumberland.—Road Materials.—For C.C. C.S., Moothall, Newcastle-on-Tyne.

Salford.—Bricks.—Retorts, firebricks, etc., for T.C. Gas Engineer, Gas Offices, Bloom-st.

NOVEMBER 27.

Dublin.—Building Materials.—For Great Southern Rly. Co. H. S. Coe, secretary, Kingsbridge Station.

NOVEMBER 28.

Northamptonshire.—Granite, etc.—For C.C. E. A Black, C.S., County Hall, Northampton.

ENGINEERING, IRON AND STEEL

NOVEMBER 11.

Frome.—Tank.—Underground reinforced concrete water storage tank at Nunney Catch, near Frome, for the R.D.C. J. A. Beynon, S., Nunney-rd.

NOVEMBER 12.

Gellygaer.—Steelwork.—40 tons of steel trough decking, new bridge at Tirphil, for U.D.C. F. Read, S.

Twickenham.—Sewage.—Alterations to buildings, tanks, etc., at sewage disposal works, Mereway-rd., for T.C. G. R. King, B.E. and S. Dep. £3 3s.

NOVEMBER 13.

Larne.—Sewerage.—Providing and laying 2,420 lin. yds. 4 in. C.I. water pipe, with necessary storage tank, valves, hydrants and fountains, and for providing and laying 816 lin. yds. of 9 in. and 6 in. C.I. and F.C. sewerage pipes, with the necessary manholes, etc., at Waterfoot, for R.D.C. S. Robinson, E., Victoria-st.

NOVEMBER 14.

Johannesburg.—Steelwork—Structural steelwork, etc., for engine sheds at Breyten, for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X.8599.)

NOVEMBER 15.

London.—Bridges.—Girder bridges, 30 metres spans, for Bombay, Baroda and Central India Railway Co. S. G. S. Young, secretary, The White Mansion, 91, Petty France, Westminster, S.W.1 Charge £1.

Shardlow.—Sewerage.—Sewerage and sewage disposal works at West Hallam, for R.D.C Elliott & Brown, chartered civil engineers, Burton buildings, Parliament-st., Nottingham. Dep £3 3s.

NOVEMBER 16.

Burntisland.—Filters.—6 sand filters and other relative works at Cullaloe reservoir, for T.C. J. A. Waddell, B.S. Dep. £2.

NOVEMBER 18.

Hinckley.—Sewerage.—Sewers, 9 in. and 12 in. in dia., with manholes, and also construction of detritus and sedimentation tanks, dosing chamber, two bacteria beds, humus and storm water tanks, and other incidental works, at Earl Shilton, for R.D.C. A. H. S. Waters, E., 25, Temple-row, Birmingham. Dep. £3 3s.

Plymouth.—Sewerage.—Sewage storage tank at Kinterbury Creek, St. Budeaux, together with a 24-in. diameter cast-iron outfall sewer laid to low-water mark in the Hamoaze (partly on piles), and the diversion of certain sewers, for T.C. J. Wibberley, City E. Dep. £2 2s.

West Riding.—Bridge.—Carrying Calverley and Horsforth-rd. over main line and sidings of L.M. & S.Rly., at approx. 300 yds. south of Calverley and Rodley station, Horsforth, for C.C. West Riding Surveyor, Wakefield. Dep. £1.

Windsor.—Sewerage.—4½ miles of 6-in., 7-in. and 9-in. stoneware pipe sewers, with manholes, and other works incidental thereto, in the parishes of Sunninghill and Sunningdale, for R.D.C. Lemon & Blizard, engineers, 9, Victoria-st., Westminster. Dep. £5 5s.

NOVEMBER 20.

Cairo.—Tower.—Steel water tank on a steel framework tower, for Egyptian Ministry of Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X.8597.)

NOVEMBER 21.

Blandford Forum. — Widening. — Ferro-concrete arches, road widening, and all other works appertaining thereto in connection with widening of five flood arches at Blandford bridge, for T.C. L. Tait, B.S. Dep. £2 2s.

Hamptworth. — Reconstruction.—Of Hamptworth gutter bridge on Redlynch-Landford-rd., for Wilts C.C. H. S. Ganderton, C.S., County Offices Trowbridge. Dep. £2.

Horsham.—Sewage.—Two new storm tanks, percolating filters of about 2,500 cube yds. capacity, with distributing apparatus, new humus tanks, new sludge drying beds, pumping station with pumps and motors, and various other additions and alterations to the existing disposal works, at Ifield and Crawley, for R.D.C. G. Swayne, E., 1, Victoria-st., Westminster, S.W.1. Dep. £5 5s.

NOVEMBER 22.

Belper.—Extensions.—Sewage disposal works at Holbrook, for R.D.C. Elliott & Brown, chartered civil engineers, Burton-buildings, Parliament-st., Nottingham. Dep. £2 2s.

London.—Steelwork.—For bridges, for South Indian Railway Co., Ltd. Robert White & Partners, consulting engineers, 3, Victoria-st., Westminster, S.W.1.

NOVEMBER 23.

Rayleigh.—Sewerage.—15 miles of stoneware and cast-iron pipe sewers, with manholes, ventilators, etc., together with sewage purification works at Rawreth Wood and Beeches sites for Eastern and Western Areas respectively, consisting of settlement tanks, filters, sludge drying beds, and works, for U.D.C. W. Harding Roberts, 27, Victoria-av., Southend-on-Sea. Dep. £5 5s.

ROAD, SEWERAGE, AND WATER WORKS

NOVEMBER 11.

Bolton.—Resurfacing.—With clinker asphalt paving of roadway known as Wash-lane, and partly in Bolton and Farnworth, for B.G. J. Ward, architect, 24, Mawdsley-st.

Cupar.—Streets.—Formation of new streets and sewer at housing site, Balgarvie-rd., for T.C. A. D. Haxton, architect. Leven.

Surrey.—Road Materials.—For Guildford-Godalming By-pass-rd., for C.C. W. P. Robinson, C.E.

Sutton and Cheam.—Making-up.—Longfellow-rd., 830 yds. lin. (concrete), for U.D.C. Wm. Hedley Grieves, S. Dep. £2 2s.

Witham.—Sewer.—1,240 yds. of 9-in. sewers and manholes and other incidental works for Powers Hall district, for U.D.C. S. Dep. £2 2s.

NOVEMBER 12.

Bromley.—Improvements.—To streets on Southborough housing site, for T.C. B.E. Dep. £1.

Colwyn Bay.—Improvements.—Also widening of Abergele-rd. to 60 ft., approx. length 1,177 yds., including limestone retaining walls, for U.D.C. W. J. Dunning, E. and S. Dep. £3 3s.

Gateshead.—Paving.—In tarmacadam, Thornleagardens, Low Fell, for C.B. F. H. Patterson, B.E.

Gosforth.—Improvements.—(1) Westfield-av., (2) Road "Westfield," (3) Regent-rd., (4) back street north of Church-rd., (5) back street west of Wolveleigh-ter., (6) Wolveleigh-ter., (7) back street east of Wolveleigh-ter., (8) back street south of Coxlodge Wagonway, for U.D.C. G. Nelson, E. and S.

Gosforth.—Sewer.—Relaying existing sewer in Back Station-rd. and Back Rows-ter., South Gosforth, for U.D.C. Geo. Nelson, E. and S.

Gosforth.—Pipe.—Sanitary pipe outfall sewer, approx. 1,850 yds. in length, from Kenton-lane to North-rd. at Coxlodge Wagonway level crossing, for U.D.C. Geo. Nelson, E. and S.

London.—Making-up.—Also paving of Emden-st., for Fulham B.C. A. F. Holden, B.S.

NOVEMBER 13.

Birmingham.—Road.—New carriageway and footway in Marsh-lane, Erdington, between Streetly-rd. and Balmoral-rd., including concrete carriageway foundation, new pennant kerb, gravel and concrete flagged footways, and foul and surface water sewers, with manholes and flushing shafts complete, for T.C. H. H. Humphries, City E. and S. Dep. £2.

Cairo.—Mains.—16,300 metres lin. of 30 in. dia. cast-iron pipes; supply and laying of 16,300 metres lin. of 0.60 metre gauge light railway; supplying, laying, jointing and testing 15,000 metres lin. of cast-iron sealed sewage and air mains; supplying special castings, spare parts and materials at site of Giza pumping station, for Ministry of Public Works, Main Drainage Dept. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. No. A.X. 8628.)

Guildford.—Making-up.—Avonmore-av., for T.C. J. W. Hipwood, chartered civil engineer, B.E. Dep. £2 2s.

Rochdale.—Paving.—Of Palatine-st., Rathbone-st. and Boggart-lane, for C.B. B.S.

Twickenham.—Improvements.—In Arragon-rd., for T.C. Gilbert R. King, B.E. and S. Dep. £1 1s

NOVEMBER 14.

Belfast.—Surfacing.—Play centres, for Public Parks, etc., Committee. Superintendent of Parks, Parks Department.

Carlisle.—Improvements.—To Currock-rd., for T.C. P. Dalton, A.R.I.B.A., City E. and S., 18, Fisher-st. Dep. £1 1s.

Chelmsford.—Reconstruction.—Of Hall-st., for T.C. J. Miles, B.E. and S. Dep. £1 1s.

Dagenham.—Surfacing.—With 2 in. mastic asphalt of "Heathway" (part), for U.D.C. E. and S.

Edinburgh. — Widening. — Corstorphine-rd. at Western-terr., for T.C. B.E.

South Mimms.—Sewer.—7,206 yds. of stoneware and cast-iron sewers from 9-in. to 18-in. diameter, and 920 yds. of 9-in. cast-iron pumping main, together with manholes, ventilating shafts and other appurtenant works, for R.D.C. John Taylor & Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

Whitefield.—Drainage.—Levelling, draining, etc., playing fields adjoining Higher-lane Council school, Whitefield, near Manchester, for Lancashire E.C. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston. Dep. £2.

NOVEMBER 15.

Magor.—Diversion.—Diversion and widening of Llanwern-rd. for a total length of approximately 550 yds., for R.D.C. W. Dowler, Clerk.

NOVEMBER 16.

Erith.—Works.—In connection with improvement at junction of Bexley-rd. and Mill-rd.; works in connection with improvement at junction of Crayford-rd. and Manor-rd., for U.D.C. H. Hind, E. and S. Dep. £1 1s. each.

Haverfordwest.—Footpaths.—320 lin yds. of concrete footpaths and kerbing at Old Bridge, for T.C. B.S.

London. — Paving. — Repaving of Scrubs-lane (part) with creosoted deal blocks on a new concrete foundation, an approx. area of 9,846 super yds., for Hammersmith B.C. R. Hampton Clucas, B.E. and S.

London.—Paving.—Of footways in Wood-lane and Scrubs-lane (parts) with artificial stone, an approx. area of 5,429 super. yds., for Hammersmith B.C. R. Hampton Clucas, B.E. and S.

Tilbury.—Reconstruction.—In reinforced concrete of Ferry-rd., from Arrols Bridge to new Ferry-rd. bridge, together with provision and laying of arti-

ficial stone slab paving, kerbing, gullies, etc., for U.D.C. S. A. Hill-Willis, E. and S.

West Riding.—Improvements.—Carrying out of works in connection with undermentioned improvements, various roads, for C.C. West Riding Surveyor, County Hall, Wakefield. Dep. £1.

NOVEMBER 13.

East Barnet Valley.—Sewer.—350 yds. of 9-in. diameter pipe surface-water sewer, together with the necessary manholes, gullies, etc., at Cat Hill, for U.D.C. C. M. Barnes, E. and S. Dep. £3.

Edmonton.—Making-up.—Raglan-rd., Colne-rd. and Crossway, for U.D.C. C. Brown, E. and S. Dep. £2 2s.

Kent.—Road.—Construction of new highway, from Herne Bay-Canterbury-rd (A.291) at Eddington to junction with Canterbury-Margate-rd. (A.28) at Frost-lane, St. Nicholas-at-Wade, for C.C. H. T. Chapman, C.S. Dep. £20

Reigate.—Road.—New roads, about 230 lin. yds. in length, off the Philanthropic-rd., Earlswood, Redhill, for T.C. F. T. Clayton, B.E. and S. Dep. £1 1s.

Southampton.—Main.—Laying and jointing of about 1,600 yds. of 12-in. C.I. socket and spigot water main from Totton to Eling Village, near Southampton, for C.B. Waterworks Engineer, 21, Shirley-rd., Southampton. Dep. £2 2s.

NOVEMBER 19.

Rochdale.—Macadam.—Surfacing, etc., of about 996 sq. yds. tarmacadam roadway, and 320 sq. yds. asphalt footpaths at Rochdale Cemetery, for C.B. B.S.

Tottenham.—Making-up.—Downhills Park-rd. (remainder); Herbert-rd.; Kimberley-rd. (extension); Mannock-rd. (remainder); Norman-rd., for U.D.C. E. and S. Dep. £1 each.

NOVEMBER 20.

Blackrock.—Main.—130 yds. of 4-in. water main under footpath in Clifton-av. and across tram road, for U.D.C. J. Mooney, T.C.

Essex.—Road.—Construction of Stanford-le-Hope By-pass, for C.C. W. H. Morgan, C.S. Dep. £5 5s.

Liverpool.—Roads.—Road and sewer works on various housing estates, for T.C. Director of Housing. Dep. £1 1s.

Turton.—Improvements.—Of High-st., Belmont, from junction of Egerton-rd. to junction of Chapel-st., for U.D.C. V. W. Laithwaite, S.

NOVEMBER 21.

Luton.—Widening.—Sewering, widening, reconstructing and surfacing with tarmacadam, portion of Stockingstone-rd., between Wardown-crescent and Richmond-hill, for T.C. J. W. Tomlinson, B.E. and S., 18, Upper George-st. Dep. £1 1s.

Luton.—Sewer.—15-in. dia. and 12-in. dia. stoneware pipe sewer in Linden-rd., for T.C. J. W. Tomlinson, B.E. and S. Dep. £1 1s.

NOVEMBER 23.

Chapel-en-le-Frith.—Pipes.—Providing, laying and jointing complete of about 6,100 lin. yds. of 3-in. cast-iron spigot and socket pipes, together with all necessary valves, hydrants, etc., at Hartington Upper, for R.D.C. Brady & Partington, chartered civil engineers, Market-st. Dep. £5.

NO DATE.

Kelso.—Repaving.—Repaving with Whinstone setts, Roxburgh-st. and Union-st., for T.C. R. W. Macvey, B.S., Burgh Chams.

Auction Sales, Tenders, etc.

NOVEMBER 13, 14, and 15.

Berks.—Simmons & Sons (having sold the estate) have received instructions from Major J. A. Morrison, D.S.O., to sell the estate yard, Basildon Estate, Goring, Berks. Auctioneers, 39, Blagrave-st., Reading, Henley-on-Thames and Basingstoke.

NOVEMBER 20.

London.—Leopold Farmer & Sons will sell, at the Mart, 155, Queen Victoria-st., E.C.4, Freehold Property, having a frontage of 136 feet, with a total site area of over one acre, at Winchmore Hill, N., known as "Windemere," Green-lanes. Auctioneers, 46, Gresham-st., Bank, E.C.2.

✱**London.**—St. Quintin, Son & Stanley will offer for letting, by auction, on Building Lease, for 99 years, at Winchester House, Old Broad-st., E.C.2, Island Building Site, known as 61, Queen-st., 11, Maiden-lane, 11, College-hill, 181a, Upper Thames-st. Auctioneers, 34, Clements-lane, Lombard-st., E.C.4.

DECEMBER 3.

Cheshire.—Henry F. Cobb will sell, by direction of the Prison Commissioners, in twenty-seven lots, at the Estate Exchange, 46, Fountain-st., Manchester, extensive freehold premises, known as H.M. Prison, Knutsford, with residential property, comprising governor's house and grounds, and 23 freehold residences at Knutsford. Auctioneer, 17 Victoria-st., London, S.W.1.

Public Appointments

NOVEMBER 12.

✱**Bury.**—Junior Architectural Assistant required by the oCunty Borough of Bury. Borough Engineen, Bank-st., Bury.

✱**Southall-Norwood.**—Building Inspector required by the Southall-Norwood U.D.C. J. B. Thomson, Engineer and Surveyor to the Council, Town Hall, Southall.

NOVEMBER 15.

✱**Staffordshire.**—Handicraft Instructor required by the Staffordshire Education Committee. Apply, Director (S.), County Education Offices, Stafford.

✱**Birkenhead.**—Temporary Architectural Assistant in the Borough Engineer and Surveyor's Department required by the Birkenhead B.C. R. W. Johnston, Borough Engineer and Surveyor, Town Hall, Birkenhead.

NOVEMBER 18.

✱**Edinburgh.**—Quantity Surveyor, temporary, wanted, Edinburgh. Commander, Royal Engineers, Lowlands District, 29, Rutland-sq., Edinburgh.

✱**Epsom.**—Building Assistant required in the Engineer and Surveyor's Department by the Epsom U.D.C. E. G. Timbrell, Engineer and Surveyor, 33, Church-st., Epsom.

London.—Senior Architect Assistant required by the Board of Control (Lunacy and Mental Deficiency). Secretary, Board of Control, Caxton House West, Tothill-st., London, S.W.1.

✱**London.**—Visiting Teachers in various trades and professions connected with the building trade required by the L.C.C. at the School of Building, Ferndale-rd., Brixton, S.W.4. Apply, Education Officer (T.1), The County Hall, Westminster Bridge, S.E.1 (stamped addressed foolscap envelope necessary).

Wolverhampton.—Clerk of Works required by the Wolverhampton Grammar School to superintend the carrying out of extensions at the Grammar School. The Architect, County Education Offices, Stafford.

NOVEMBER 19.

✱**Croydon.**—Temporary Architectural Assistant (three) required by the Croydon C.B. R. B. Morgan, Education Officer, Education Office, Katherine-st., Croydon.

Denbigh.—Architectural Assistant on the temporary education staff of the County Architect's Dept., by the Denbigh B.C. W. D. Wiles, County Architect, Acton Hall, Wrexham.

NOVEMBER 23.

✱**Bootle.**—Architectural Assistant required by the County Borough of Bootle. Borough Engineer and Surveyor, Town Hall, Bootle.

✱**London.**—Draughtsman required in the Architect's Branch, the Board of Control (Lunacy and Mental Deficiency). The Secretary, Board of Control, Caxton House West, Tothill-st., London, S.W.1.

NOVEMBER 25.

✱**Southgate.**—Draughtsman required in the Surveyor's Department of the Council, by the Southgate U.D.C. A. E. Lauder, clerk and solicitor, Southgate Town Hall, Palmer's Green, N.13. (Form on receipt of stamped addressed envelope.)

DECEMBER 6.

✱**Surrey.**—Architectural Assistant required in the Department of the Surveyor of County Buildings, for the Surrey C.C. Clerk to the Council, County Hall, Kingston-on-Thames, endorsed "Architectural **Assistant.**"

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PROPOSED NEW BUILDINGS AND OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B for County Borough; B. of E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B for Metropolitan Water Board; Borough Surveyor B.S; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer C.E.; County Surveyor, C.S.; County Architect, C.A., Surveyor, S.; Engineer, E.; Borough Architect B.A.; Architect, A.

Altrincham.—Plans being prepared for theatre scheme in Barrington-rd. by Altrincham Garrick Society.

Armthorpe.—Doncaster R.D.C. propose sewage scheme of £19,995.

Attleborough.—Scheme for church and schools shortly to be carried out. Cost £7,200. J. T. Hoof, Hill Top, is architect.

Badsey.—E.C. to proceed with scheme for junior school adjoining existing school.

Barnsley.—With view to raising funds for rebuilding two branch churches of St. Mary's, meeting been held in boys' schoolroom, Churchfield.

Bedlington.—Plans being considered for R.C. school to accommodate 250 children and to cost £6,000, for Rev. H. E. Brietzeke.

Blackpool.—Catterell & Swarbrick's Brewery, Ltd., Talbot-rd., propose demolish Commercial Hotel, Commercial-rd. and South-parade, and rebuild. Plans by R. B. Mather, Son & Wilding, architects, Birley-st.

Bolton.—Father J. Lawless, of St. Mary's, acquired site, Palace-st., for school and provide additional accommodation for senior boys.

Bolton.—Headquarters, British Legion, at Edgerton.

Bournemouth.—T.C. approved: additions, factory, rear of 104 and 106, Holdenhurst-rd., J. Gunning; additions, 609 and 613, Christchurch-rd., F. W. Woolworth; 44 houses, Seafield and Saxonbury-rds., S. Kermode; 8 houses, Priory View-rd., W. W. Baker; 4 houses, Charminster-rd., F. J. Marks.

Bridlington.—T.C. approved: J. E. Wray, 14 houses, new road south side of Queensgate; T. Winn & Sons, garages for cars and cycles, rear of Britannia Hotel, Prince-st., A. B. Lamm.

Brighouse.—Clayton West Cotton Co., Ltd., cotton manufacturers, Victoria Mills, acquired additional premises as extension to works.

Burton-on-Trent.—E.C. to purchase part site old Clarence-st. brewery for £3,665 for school.

Castleford.—U.D.C. propose conveniences Bradley-st. Tenders be invited.

Carlisle.—Understood that future railway developments include establishment central goods dépôt and marshalling yard by L.M. & S.R. Co. Cost will probably be £500,000.

Carmarthenshire.—C.C. to ask M.H. to approve Middleton Hall site as alternative site for isolation hospital.—Council decided that architect should prepare new plans with view to erection new block instead of adapting, for additional accommodation, county prison, for county council offices.

Chertsey.—U.D.C. considering a bathing pavilion.

Chesterfield.—Jackson & Fryer, 5, Stephenson-place, architects for ward of 30 beds with necessary accommodation for nursing and domestic staff at Chesterfield and North Derybyshire Royal Hospital.

Chesterfield.—Derbyshire E.C. propose secondary schools and playing-fields at Tupton Hall grounds. Plans by George H. Widdows, St. Mary's-gate, Derby.

Chislehurst.—15 shops, Station-sq., and 3 in Pett's Wood-rd. Plans by Montagu Holmes & Sons, of 33, Paternoster-row, E.C.4.

Chislehurst.—U.D.C. approved Wiggins, Ltd., of Hammersmith, shop and garages.

Coventry.—Public Libraries Committee recommend that land at Longford be acquired at £361 for branch library.—Council concur in proposal to erect open-air ward at County Mental Hospital at £1,968.

Coventry.—T.C.'s five years' road programme, involving £290,000 has been passed.

Croydon.—M.H. sanctioned borrowing by C.B. of £900 for tea kiosk, and £400 for lavatories at Croham Hurst.—B.E. is to prepare plans and specifications of about 20 houses on land in Kensington-av.—C.B. recommend application to M.H. for consent to appropriation site on Duppas Hill recreation ground for sub-station.—Plans passed: Wates, Ltd., 668, High-rd., S.W.16, 24 houses and 8 additional houses, Mitcham-rd.; F. W. Milton, 248, Brigstock-rd., 5 garages, 27-37, St. Oswald's-rd.; W. T. Cripps, Stanford estate Office, South-rd.,

* See also our List of Contracts, Competitions, etc.

Preston, 10 houses and 2 garages, Semley-rd. and Norton-gardens; R. Pierson, 47, Wakehurst-rd., S.W.11, 15 garages, 61-69, Florida-rd.; Bethall, Swannell & Durnford, 16a, John-st., W.C.2, extension to warehouse, London-rd.; W. E. Ratcliffe, Purley-way, showroom extension, Purley-way and Epsom-rd.

Crossgates.—Empsall, Clarkson & Clarke, architects, Piece Hall-chams, Bradford, preparing plans for school and assembly hall at Crossgates, near Leeds, for Rev. O'Halloran.

Cuddington.—J. W. Beaumont & Sons, architects, 24, Brazennose-st., Manchester, preparing plans for swimming pool.

Eastbourne.—Premises for National and Provincial Bank, Ltd. Site corner of Terminus-rd. and Cornfield-rd. Plans by bank's architect, Mr. F. C. R. Palmer, F.R.I.B.A., in conjunction with Mr. F. D. Stonham, F.R.I.B.A., of Hadley House, Upperton-rd.

Eastcote.—Plans approved: alterations, High-rd., for W. H. Gaze & Sons, Ltd.; lock-up shop and offices, Elm-av., F. G. Harrowell.

Evesham.—Plans being prepared, tenders invited for senior school to accommodate 280 children. It is also proposed to extend Broadway Council school.

Foleshill.—C. Redgrave, architect, Barbican-chams., Earl-st., Coventry, prepared plans for Congregational church hall at Bell Green-rd.

Frimley.—Surrey E.C. propose school. Plans by Jarvis & Richards, 60, Tufton-st., S.W.1. Site in Frimley-rd.

Gillingham.—T.C. approved bungalows, Thames-av., Rainham, by F. T. Mattocks, for E. Spenceley and C. Tester; 8 houses, Locarno-av., by W. J. Vinall.

Gravesend.—The Gravesend Co-operative Society, Ltd., propose grocery and provision branch on King's Farm estate.

Guildford.—Surrey's £240,000 scheme for improvement River Wey to prevent flooding been subject M.H. inquiry.—T.C. to lay out site at Stoughton for 44 houses.

Hartlepool.—T.C. approved preparation plans and estimates for 32 houses near West View.

Hatfield.—In connection with Beds and Herts Church scheme for raising £105,000 towards preservation old churches, erection churches and assist in retention of church schools, meeting be held at Hatfield House.

Heckmondwike.—Yorkshire Tramways and 'Bus Services Sports Club secured premises, Beck-lane, for headquarters.

Hitchin.—U.D.C. resolved that committee be appointed to consider additional houses for working classes.

Holmfirth.—Holmfirth Motor Co., Town Gate Garage, Holmfirth, proposing motor service garage, West-st. and Market-st. Plans by P. N. Brown, architect, Hollowgate, Holmfirth, near Huddersfield.

Hull.—E.C. approved a report of educational requirements in North and West Hull. It is proposed to build 8 schools, including Grammar school.

Hull.—E.C. approved: 7 new elementary schools, new Grammar School, and utilisation of the present building as elementary school.

Keighley.—Corporation proposing dairy at Woodhouse farm to plans Borough Architect, E. G. Felgate, A.R.I.B.A.

Keighley.—West Riding E.C. having plans prepared by H. Wormald, A.R.I.B.A., for Girls' Grammar School at High Utley.

Kendal.—Governors, Westmorland County Hospital, have in hand scheme for extensions nurses' quarters and extensions X-ray department. J. F. Curwen & Son, chartered architects, Highgate, architects. Quantities by T. Sumner Smith, Clifton Lodge, The Crescent, Victoria-park, Manchester.

Lambourn.—Berkshire E.C. received B. of E. general approval to plans submitted on behalf of the managers of C. of E. school.

Leamington.—Scheme under consideration for restoration parish church of All Saints' and extension church school buildings.

Leeds.—It has been decided to demolish existing church premises in Melbourne-st. and erect business premises on site. Ripon Diocesan Conference decided spend £61,000 upon purchase of sites and erection churches in various new residential districts of city.

Leicester.—T. McCarthy & Co., LL.R.I.B.A., Central-chams., Coalville, Leicester, architects, church for Catholic Authorities.

Leyton.—T.C. considering temporary building next to Town Hall, at £2,800.

Littlehampton.—U.D.C. proposing further houses. Certain land, North Hom-rd., being considered for 48.

London (Bermondsey).—L.C.C. recommend borrowing by B.C. of £45,141 for sewer reconstruction works.

London (Deptford).—B.C. approved: B. W. Stiles, 126, Hill-st., Peckham, S.E.15, additions, "Prince of Wales" public house, Kender-st.; D. S. Jones, 75, Kent-rd., Dartford, mission hall, 17, 19 and 21, Baildon-st.

London (Lewisham).—B.C. approved: E. H. Wilkins, 4 houses, Palmure-rd.

London (Westminster).—City Council approved £180 for repairs, etc., at 14, Westbourne-st., S.W.

Lynn.—Jermyn & Sons, Ltd., erect arcade in High-st.

Manchester.—Board of Management, Babies' Hospital, Slade-lane, Levenshulme, propose extensions to institution by provision 40 additional beds.—W. Telford Gunson & Sons, 10, Marsden-st., architects reconstruction school premises in Burlington-st., Greenheys, for Catholic Authorities.

Mansfield.—T.C. approved: Home Brewery Co., Ltd., additions to Green Dragon Hotel, Leamington-st.; R. Turner, factory, Sheepbridge-lane.

Milnrow.—E.C. proposing central school to accommodate 400 children. Plans by Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

Newbury.—T.C. approved alterations and additions Ladies' County Club.

Normanton.—U.D.C. propose convenience near Altoft's Hall.

Oldham.—Scheme for additional accommodation to be made at library and museum in Union-st. be considered.

Reading.—T.C. considering important report relating to large improvement schemes in Reading to be carried out at approximate cost of nearly £100,000.

Romford.—Prov. Grand Master, Brig.-Gen. R. B. Colvin, C.B., presided over meeting of representatives to consider scheme for building Masonic Hall.

Ruislip.—Plans approved: 2 pairs and one detached house, North-drive, H. T. Bowers; 4 pairs semi-detached houses, Eastcote-rd., S. G. Bell.

Salford.—Governors of the Royal Hospital having plans prepared for out-patients' department with clinics attached. Architects are P. Barker, F.R.I.B.A., 32, King-st. West, Manchester, and Thomas Worthington & Sons, FF.R.I.B.A., 178, Oxford-rd., Manchester.

Salford.—Large extension scheme be put in hand by B.G. at Hope Hospital. Cost £75,000.

Stourbridge.—Senior Council school to accommodate 400 boys and 400 girls on Pedmore-rd. housing estate, for County E.C. It is also intended to erect additional Council school to accommodate 280 children on site between Hagley and Holy Cross.

Sunderland.—G. T. Brown & Sons, A.R.I.B.A., 51, Fawcett-st., architects for lay-out for 300 houses at Bainbridge Holme.

Sunderland.—Building Committee of Corporation approved plans for pathological department at infirmary.

Taunton.—Beet-drying station shortly to be erected for the Sugar Beet and Crop Dryers, Ltd., of Lincoln House, High Holborn, W.C.1. Plans under direction Col. J. Bowden, Sardinia House, Kingsway, W.C.2.

Thorne.—West Riding accepted tender of £34,619 14s. 4d. for elementary school, with caretaker's house. Site, Goole-rd.

Wakefield.—Scheme of extensions at Thomes House Schools is to be carried out shortly.

Walthamstow.—Council approved: 13 garages, Orford-rd., J. R. Day; 12 houses, Garner-rd., Gale Bros.; 4 houses, Gloucester-rd., W. Woolf.

Wareham.—T.C. is to build 24 houses.

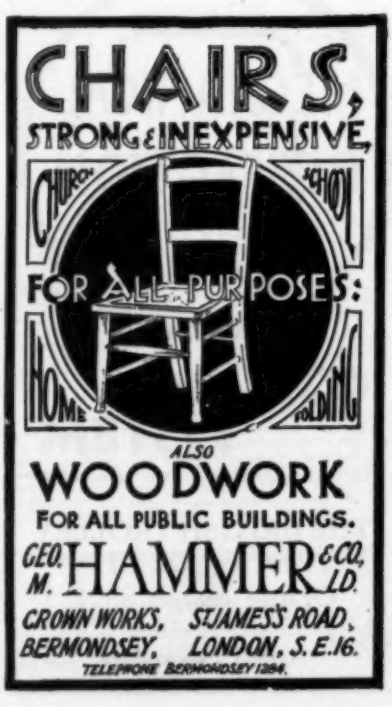
Welling.—Church at East Wickham proposed by Rev. R. Williams, The Vicarage, East Wickham. T. F. Ford, A.R.I.B.A., architect, 35, Finsbury-sq., E.C.2. Cost £14,000.

Wells.—R.D.C. approved extension of Wells Cottage Hospital.

Welwyn.—R.D.C. approved plans for 6 shops by E. B. Meek, on Welwyn Heath estate.

Wellingborough.—Council are building £3,000 sports pavilion.

West Ham.—T.C. approved £173,000 housing scheme to re-house tenants from houses and shops in Victoria Dock-rd.



Whitehaven.—T.C. decided to erect 82 houses by direct labour, at £26,260.

Wigan.—B.E. prepared plans for Council school in Ormskirk-rd., Pemberton. Cost £24,150.

Wigan.—B.E. submitted estimate of completing scheme at Hoscar Sewage Works, including provision of additional batteries with percolating filters, tanks, carriers, etc., at £52,889.

Worthing.—M.H. held inquiry into application of T.C. for £44,004 for surface water drainage works.

NEW CINEMAS

Haslemere.—Alterations and additions are to be made at the Weyhill Kinema for the Haslemere Cinema Co., Ltd. The plans for the scheme have been prepared by Mr. W. Leslie Carter, F.S.I., of Osborne-road, Romford, Essex.

Manchester.—The management of the Star Picture Theatre, Ltd., 133, Great Ducie-street, are proposing to carry out alterations to the cinema. The plans are being prepared by Mr. W. Thornley, architect and surveyor, 46, Wallgate, Wigan.

Newcastle-on-Tyne.—Preliminary plans for the erection by the Famous Lasky Film Service of a super-cinema in Pilgrim-street were passed on October 30 by Newcastle Town Improvement and Streets Committee. The site marked out on the plans is between the garage occupied by R. E. Hale & Co., immediately to the north of the Northern Conservative and Unionist Club and the Rendezvous Restaurant. It is indicated that the proposed cinema will have seating accommodation for 2,360 people—1,230 in the ground-floor stalls and 1,130 in the balcony. It will present sound as well as silent pictures. The architect is Mr. Frank T. Verity, F.R.I.B.A., 7, Sackville-street, W.1.

North Berwick.—We learn that a scheme is in hand for the erection of a new cinema theatre in North Berwick. The proposed site is in the centre of the town, and an up-to-date building will be erected, with seating accommodation for 1,100 persons, some 300 of whom will be seated in the balcony. It is understood that Mr. R. A. Lambert, of George-street, Edinburgh, is connected with the scheme.

BETHNAL GREEN BATHS

On this work, described on page 776, the following sub-contractors have carried out work under the main contracts, as under:—Morton's (Tevidale), Ltd., constructional steel; Acme Flooring and Paving Co. (1904), Ltd., wood block floors; Aldous and Campbell, Ltd., electric lifts; Birmingham Guild, Ltd., commemoration tablet; Brookes, Ltd., granite work to front entrance gate piers; Carter and Co. (London), Ltd., floor tiles and dado to lavatories and corridors; Carter and Aynsley, Ltd., door furniture and general ironmongery; Cellactite and British Uralite, Ltd.; roofing fabric; J. and P. Wright, plastering and granolithic; Stone and Marble Co., stonework and Sicilian marble; Clark, Hunt and Co., Ltd., external iron staircases; Dent and Hellyer, Ltd., slipper baths and sanitary fittings; Diespeker and Co., Ltd., terrazzo partitions and floors to slipper baths; Ewart and Son, Ltd., dome ventilator; Farnley Iron Co. (Fireclay) Works, Ltd., glazed bricks to swimming baths; Francis Morton, Junior and Co., springs and ironwork for temporary floor to main hall; Gilbert Seale and Son, fibrous plaster work; Harris and Sheldon, Ltd., metal lockers and fittings; Humphries, Jackson and Ambler, Ltd., ironwork to staircases, railings and gates; J. King and Co., Ltd., pavement lights; Limmer and Trinidad Lake Asphalte Co., Ltd., asphalt work; Lips, Ltd., steel doors and safe; Marbello, Ltd., terrazzo floors, wall lining and staircase; Somerville-Barnard Construction Co., Ltd., diving stages; The May Construction Co., Ltd., acoustic tiling and plaster work; The Neckar Water Softener Co., Ltd., water softener; Sturtevant Engineering Co., Ltd., suction cleansing apparatus; Willment Bros., excavators for foundations; F. R. Hipperson and Son, joinery.

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	£ s. d.		£ s. d.
Flettons, at King's Cross	2 12 3	Best Blue Pressed Staffs	9 5 0
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Do., Bullnose...	3 7 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick :—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ...	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers...	26 10 0
Headers	20 10 0	One Side and one End	30 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	Two Sides and one End	31 10 0
		Splays, and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

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Delivered London

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in per yd. super	2 9
2½ in. ,, ,,	2 4	4 in. ,, ,,	3 6

	s. d.	
Thames Ballast	9 9	per yd.
Fit Sand	12 0	,, ,,
Thames Sand	12 6	,, ,,
Best Washed Sand	12 6	,, ,,
½ in. Shingle for Ferro-Concrete	12 0	,, ,,
¼ in.	12 6	,, ,,
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Ferrocrete per ton extra on above	0 7 6
Vitrocrete ,, ,,	0 7 6
Super Cement (Waterproof)	3 16 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
,, ,, Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Sirapite, Coarse	3 9 0
,, Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
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Hair ..... per cwt.	2 2 6
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Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

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BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 10

BEER STONE—RANDOM BLOCK—
Free on rail at Seaton Station per ft. cube 2 3
Delivered free on rail Nine Elms, S.R. per ft. cube 3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

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Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 4½
Do. do. delivered on road wagons at above stations, per ft. cube 4 5½
White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every foot over 20 ft *average*, and ¼d. beyond 20 ft.

HOPTON-WOOD STONE.—
F.O.R. Quarries, Wirksworth, Derbyshire, s. d.
Random blocks from 10 ft. and over P. ft. cb. 14 0
Sawn two sides ..... ,, 22 6
Sawn three or four sides ..... ,, 27 6

YORK STONE, BLUE—*Robin Hood Quality*.
Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super) ..... Per ft. super	5	6
6 in. rubbed two sides, ditto ..... ,,	6	0
3 in. sawn two sides slabs (random sizes) ,,	2	3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... ,,	1	6½
1½ in. to 2 in. ditto, ditto ..... ,,	1	9½

HARD YORK—
Delivered at any Goods Station, London,

Scappled random blocks ..... Per ft. cube	6	3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super	5	1½
6 in. rubbed two sides, ditto ..... ,,	6	1½
4 in. sawn two sides slabs (random sizes) ,,	2	1½
3 in. ditto ditto ,,	2	10
2 in. self-faced random flags ..... Per yd. super	8	6

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4 × 11	£30 0	3 × 6	£21 0
4 × 9	26 0	3 × 11	25 0
4 × 8	25 0	2 × 11	20 0
4 × 7	23 0	2 × 9	24 0
3 × 8	22 0	2½ × 9	24 0
3 × 7	22 0	3 × 4½	21 0
2½ × 7	21 0	3 × 4	21 0

PLANED BOARDS.

1 × 11	£30 0	1 × 9	£28 0

PLAIN EDGE FLOORING

Inches.	per sq.	Inches.	per sq.
⅝	18/-	1½	30/-
¾	21/-	1½	34/-
1	24/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.	Inches.	per sq.
1	24/-	⅝	16/6
1¼	30/-	¾	19/-
1½	34/-	1	24/-

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	£ s. d.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 16 0	to 0 18 0
Dry American and/or Japanese Figured Oak, ft. cube	0 14 0	to 0 15 0
Dry American and/or Japanese Plain Oak, ft. cube	0 10 0	to 0 13 0
Dry sq. edged Honduras Mahogany, ft. cube	0 15 0	to 0 18 0
Dry Log cut Honduras Mahogany, ft. cube	0 16 0	to 1 1 0
Dry Cuba Mahogany, ft. cube	1 1 0	to 1 10 0
Dry Teak, ft. cube	0 13 0	to 0 15 0
Dry American Whitewood, ft. cube	0 10 0	to 0 14 0
Best Scotch Glue, per cwt.	4 10 0	to —
Liquid Glue, per cwt.	4 7 0	to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

	£ s. d.		£ s. d.
24 by 12	32 18 4	18 by 10	18 12 11
22 by 12	29 17 11	18 by 9	16 0 2
22 by 11	27 14 2	16 by 10	15 12 6
20 by 12	26 5 0	16 by 8	12 3 9
20 by 10	22 10 0		

TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	£5 7 6
ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) { Hand-made	0 9 6
{ Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

R.S. Joists, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
,, Stanchions	16 10 0
,, In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ½ in.	10 15 0
⅝ in.	11 0 0	¾ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ½ in. and under.	Fittings. Over ½ in.	Flanges. ½ in. and under	Flanges. Over ½ in.
	%	%	%	%	%	%
Gas	65	52½	45	47½	55	57½
Water	61½	48½	40	42½	50	52½
Steam	57½	45	35	37½	45	47½
Galv. gas	52½	40	35	37½	45	47½
Galv. water	47½	35	30	32½	40	42½
Galv. steam	42½	30	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10½d.	9½d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/0½	2½d.
5 in.	1/5	1/2½	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/2½	9½d.	1/2
2½ in. ,, ...	1/3	10½d.	1/4½
3 in. ,, ...	1/6½	1/1½	1/8½
3½ in.	1/11	1/4½	1/11½
4 in. ,, ...	2/2½	1/7½	2/4½

*The above R.W. Goods prices are subject to an advance of 5% from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe, angles, stock lengths.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 5	1 9	2 1
2½ in. ,,	2 9½	1 10½	2 7
3 in. ,,	3 0	2 1	3 1
3½ in. ,,	3 3	2 7	3 7
4 in. ,,	3 8	2 11	4 1½

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe, angles, stock lengths.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	3 6	4 6	7 0
4 in. ,, ,,	4 8	5 5	9 3
5 in. ,, ,,	6 3	9 6	15 0
6 in. ,, ,,	7 3	11 6	19 0

Gaskon for jointing, 41/- per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common bars	11 0 0	to	12 0 0
Staffordshire Crown Bars— Good merchant quality	11 10 0	to	12 10 0
Staffordshire Marked Bars	14 0 0	...	15 0 0
Mild Steel Bars	10 0 0	...	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	...	11 0 0
Hoop iron, basis price	11 10 0	...	12 10 0
,, Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g.	13 0 0	...	14 0 0
,, ,, ,, 24 g.	14 0 0	...	15 0 0
,, ,, ,, 26 g.	16 0 0	...	17 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality,— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 0 0	...	17 0 0
Ordinary sizes, 6 ft. by to 3 ft. to 26 g.	18 0 0	...	20 0 0

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	16 10 0	...	17 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	17 0 0	...	18 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	20 0 0	...	21 0 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0	...	22 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	23 0 0	...	25 0 0
Best Soft Steel Sheets, 26 g.	24 10 0	...	25 10 0
Cut Nails, 3 in. to 6 in.	18 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	31 5 0
Pipe in coils	31 15 0
Soil pipe	34 15 0
Compo pipe	35 15 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	21	0 0

COPPER.

		d.
Seamless Copper tubes (basis)	per lb.	1 1½
Strong sheet	,,	1 0
Thin	,,	1 1
Copper nails	,,	2 3
Copper wire	,,	2 4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	5½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1½ in.	1¼ in.	2 in.	3 in.	
8 lbs. P. traps ...	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps ...	35/-	45/-	66/-	126/- ,,

TIN.—English Ingots, 2/5 per lb. SOLDER.—Plumber's 1/1. Tinmen's 1/3. Blowpipe 1/4 per lb.

PAINTS, &c.

Raw Linseed Oil, in pipes	per gallon	0 3 11	
,, ,, ,, in barrels ...	,,	0 4 1	
,, ,, ,, in drums ...	,,	0 4 3	
Boiled ,, ,, in barrels ...	,,	0 4 3	
,, ,, ,, in drums ...	,,	0 4 6	
Turpentine in barrels	,,	0 3 10	
,, in drums (10 galls)	,,	0 4 0	
Genuine Ground English White Lead, per ton		55 0 0	

(In not less than 5-cwt. casks.)
Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

GENUINE WHITE LEAD PAINT.

		£	s.	d.
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganawyte," "Polacco," "J." Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots ...	per ton delivered	74	10	0
Red Lead, Dry (packages extra)	per ton	40	0	0
Best Linseed Oil Putty	per cwt.	0	15	6
Filicol	"	0	15	6
Size, XD quality	ftn.	0	3	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ...	2½d.	32 oz. fourths	6½d.
15 ,, thirds ...	3½d.	32 ,, thirds	9d.
21 ,, fourths ...	3½d.	Obscured Sheet, 15 oz.	3½d.
21 ,, thirds ...	4½d.	,, ,, 21 oz.	4½d.
26 ,, fourths ...	4½d.	Fluted, 15oz. 6'd.,21oz.	9d.
26 ,, thirds ...	6½d.	En'lled,15oz. 4½d.,21oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
¼ Rolled plate	4½d.
⅜ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White...	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinned do.	6½d.

Cast plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	0
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	6
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine		0	9	0
Cuirass Black Enamel		0	7	0

NEW BUILDINGS IN SCOTLAND

Edinburgh.—CONVERSION.—The Treasurer's Committee of Edinburgh Town Council have considered a report by the Plans and Works Committee on the proposal to transfer the City Museum in the City Chambers to Huntly House, Canongate, which would require to be converted for the purpose. The cost will be between £9,000 and £10,000. The plans for the reconstruction of Huntly House are being prepared by Mr. F. C. Mears, in conjunction with Mr. E. J. MacRae, A.R.I.B.A., the city architect.

Edinburgh.—SCHOOL.—The Edinburgh Dean of Guild Court has granted warrant for the erection of a new school at Wardie Recreation Ground, between Upper Granton-road and Netherby-road, Trinity. Accommodation will be provided for 700 scholars. There will be a dozen classrooms and assembly hall. The architect is Mr. J. M. Johnston, of Leith.

Edinburgh.—BUILDINGS.—The Dean of Guild Court sanctioned the following applications:—City—addition to Powderhall Cleansing Depot, Broughton-road; City—workshop at corner of Lochend-road and Lochend-drive; Carleton H. Dunlop—five double bungalows at Gardiner-road, Blackhall; Gilmerton Junior Friendly Society—addition to hall at Drum-street, Gilmerton; Scott & Co., Ltd., builders—three double villas and six garages at Cadogan-road, Liberton.

Elgin.—GARAGE.—Permission has been granted by the Town Council for the erection of a large station and garage near to Elgin Mental Hospital.

Saltley Training College, Birmingham.

This training college has been enlarged by the addition of a south wing, containing library and residential quarters for students and members of the staff. The architect was Mr. H. W. Hobbis, of Birmingham, and the cost was £22,000.

TRADE NEWS

Change of Address.

We learn that the K.C.B. Foundry Co., Ltd., have recently removed from 120b, Mount-street, London, W.1, and have acquired a large house and 4½ acres of ground at Clay Hill, Bushey, Herts, on the main London to Watford road. The whole of the business will be transacted from there.

Patent Ventilators.

We have received from Messrs. Rhodes Chains, Ltd., their new folder, containing illustrations and prices of Greenwood's Patent Ventilators, which this firm are now controlling and marketing, having taken over the business from the Greenwood Ventilating Co., Ltd., which was originally established by T. W. Greenwood in 1879. Greenwood's patent larder lights, ventilights and skylight ventilators are manufactured in cast-iron, steel, galvanised or copper, and supplied ready to fix. They provide efficient ventilation with lighting, and are, we hear, being widely adopted in all parts of the country by leading architects, the London County Council, War Office, and many important local authorities.

A SKYLIGHT.

Greenwood's ventilating windows cost nothing to fix. They are merely built in, while the skylight ventilators may be used on any pitch of roof and require no flashings or opening gear, nothing to get out of order. Other designs include the new patent "Permavent" and "Ventex" skylights in copper or steel galvanised, while the requirements of those seeking movable louvres, hoppa-vents and air-bricks are catered for. Full details may be obtained from 8-10, Charing Cross-road, London, W.C.2, and samples may be seen in the showroom.

A LARDER LIGHT.

Savoy Theatre, Strand.

We learn that Messrs. Girlings' Ferro-Concrete Co., Ltd., of Rothwell, Leeds, who were sub-contractors under Messrs. The Pitcher Construction Co. for this theatre, illustrated in our last issue, supplied the precast reinforced concrete treads and risers for both the balconies.

Wood Dyes.

We have received some facts regarding Johnson's Wood Dyes. We learn that these dyes enable the craftsman to copy the most expensive woods and to introduce a very pleasing variety of shades, of which the makers list no fewer than eighteen. Further, they are permanent. Messrs. Johnson's, we gather, have a wide experience in wood finishing of all descriptions, and are only too pleased to co-operate in any problems of this kind put before them.

The Commercial Motor Show.

The issue of *The Commercial Motor* dated November 9 is a specially enlarged number containing a complete forecast of the chassis, vehicle and body exhibits at the Commercial Motor Show. Apart from this, there is a number of most interesting technical articles concerning such important subjects as braking, the future of the transmission, and developments in bodies for goods-carrying vehicles. Several new chassis and tractor products are described in detail.

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers— Masons'‡ Bricklayers'† Plasterers'†
Aberdeen	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Airdrie	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Alexandria	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Bisirgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dundee	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3 †1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	‡1/2½ †1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/6½	1/7	1/6½	1/7	1/6½	1/6½	1/7	1/2
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Leith	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Perth	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Stirling	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Stirlingshire (Eastern District)	1/7½	1/9	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½

* The information given in this table is copyright. The rate of wages in the various towns in England and Wales are given on page 796.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	"	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	3
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	0	11
Centre for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	"	—	49/-	57/6	65/-
Do. matchings	"	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.

		1¼"	1½"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1½ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	44	0
Do. Do. in flats	"	43	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run		1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	" "	2	9
Do. Do. Keen's	" "	4	0
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
¼-in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

Barking.—Block of shops in Longbridge-road Mr. E. Meredith, F.R.I.B.A., chartered architect, 7, Goodmayes-road, Goodmayes:—

Baker, Hammond & Laver, Rainham	£19,765
H. C. Seymour, Romford	17,750
Holland Bros., Romford	16,950
Eaton & Son, Chelmsford	16,655
*Stedman Bros., Ilford	15,012

Bexhill.—40 houses at Burnt House Farm, Sidley, for the T.C.:—

T. Relfe, Fairlight	£20,849 0
Corolite, Ltd., London, W.C.	18,440 0
W. J. Simms, Sons & Cooke, Nottingham	14,760 0
Norman Smith & Sons, Maidstone	13,757 0
*Tree & Custle, Ramsgate	13,583 6
Gilbert Brothers, Broadstairs (withdrawn)	13,210 0

Bexhill.—12 houses in Pear Tree-lane, Little Common, for the T.C. Borough Engineer and Surveyor:—

C. Collier & Son, East Farleigh	£5,048 0
W. H. Green & Sons, Portslade	4,830 0
P. Fewtrell, Barking	4,612 15
W. J. Simms, Sons & Cooke, Nottingham	4,590 0
Norman Smith & Sons, Maidstone	4,580 0
*D. J. Williams, Aberystwyth	4,501 5

Birkenhead.—Repairs and painting to north and south branch libraries, for the Corporation:—

*Stott & Ward, Grange-road West, Birkenhead	£361 7 3

Birmingham.—Installation of heating and domestic hot water apparatus at (1) Erdington girls' secondary school extension; (2) Thornton-road Council school; and (3) Sparkhill Commercial school for the E.C.:—

(1)—	
*Bagley & Parker, Ltd., Birmingham	£2,939 9
(2)—	
*Bagley & Parker, Ltd., Birmingham	1,817 5
(3)—	
*The Brightside Foundry & Engineering Co., Ltd., 17, Summer-road, Birmingham	1,478 10

Birmingham.—Installation of electric light at (1) Erdington girls' secondary school extension; (2) Thornton-road Council school, Washwood Heath; and (3) Sparkhill Commercial school, for the E.C.:—

(1)—	
*Harrison & Searle, Ltd., Birmingham	£763 11
(2)—	
*Lea, Son & Co., Ltd., Birmingham	401 17
(3)—	
*Lea, Son & Co., Ltd., Birmingham	616 16

Blackpool.—Sanitary fittings and wall and floor surfacing required at the extension of Talbot-square public conveniences, and also plan of proposed subway from the Square to the Promenade, for the C.B.,—

Wall and floor surfacing—*Conway & Co
Sanitary fittings—*Shanks & Co., Ltd.

Blackpool.—Painting and decorating the single men's and married men's messroom, and the supplying and fixing of two new lavatory basins in the single men's quarters at the Central Police Station, for the C.B.:—

*J. W. Thornley.

Bradford.—Alterations and extensions to the "White Lion Inn," John-street:—

*J. Farnell & Sons.

Bradford.—New hotel on Five Lane Ends, for the Leeds and Wakefield Brewery, Ltd., Melbourne Brewery, 5, Sackville-street. Messrs. James Young & Co., L.R.I.B.A., architects, Lloyd Bank-chambers, Hustlergate:—

*Wray & Co., Coppy Quarry, Bradford.

Bradford.—For alterations and extension of premises in Darley-street, for Messrs. Marks & Spencers, Ltd.:—

Main Contract—*Bovis, Ltd., London.
Plumbers—*Atkinson & Smith, Frizinghall.

Burntisland.—Construction of a light timber groyne about 250 feet long and 2 feet high, on the Beach at Limestone Pier, for the T.C. Mr. J. A. Waddell, surveyor:—

*Alexander Mowat, Windygates	£110 2 4
William Jackson, Edinburgh	284 9 6

Clitheroe.—Headquarters in Castle-street, for the Conservative Association. Messrs. A. R. Gradwell & Sons, architects, 25, Victoria-street, Blackburn:—

*J. Beazard, Railway View, Clitheroe.

Doncaster.—180 houses on the Intake site, for the C.B. Mr. R. E. Ford, Housing Surveyor, 3, Priory-place:—

*Swift Bros. & Haslam, Ltd., Doncaster	£59,148

Epsom.—Installation of central heating in connection with alterations and additions to the wards at the Cuddington Isolation Hospital, for the Epsom (Rural), Sutton, Carshalton and Leatherhead Joint Hospital Board. Messrs. A. C. Williams & Pettett, Reid's-buildings, Ashley-road, Epsom:—

J. W. Wood	£3,803 0 0
Carling, Gill & Carling, Guildford	1,839 7 5
Brightside Foundry & Engineering Co., Ltd.	1,277 0 0
Griffiths, Sons & Cromwell, Ltd.	1,219 0 0
William Freer, Ltd.	1,216 0 0
Heat & Light	1,164 4 9
J. & F. May	1,163 15 0
T. S. Marriage & Co.	1,107 18 6
R. H. & J. Pearson, Ltd.	1,102 17 6
National Heating Co., Ltd.	1,083 0 0
H. J. Cash & Co., Ltd.	1,073 0 0
Heath & Chapman	1,024 0 0
*W. G. Neale, Tadworth (Remainder of London.)	1,016 10 0

Exeter.—Science block at the Western University. Messrs. Sidney K. Greenslade and E. Vincent Harris, architects, 29, St. James's-square, S.W.1. Mr. F. J. Clevely, F.S.I., quantity surveyor, 58, Gordon-square, W.C.1:—

Contractors—*W. T. Nicholls, Ltd., St. Paul's-road, Gloucester.
Stonework—*United Stone Firms (1926), Ltd., 2, Bristol-chambers, Nicholas-street, Bristol.
Stone Carving—*A. Broadbent & Son, 430, Fulham-road, S.W.6.
Heating—*J. Jeffreys & Co., Ltd., Barron's-place, Waterloo-road, S.E.1.
Steel Casements, etc.—*Luxfer, Ltd., 16, Hill-street, Finsbury, E.C.2.
Three Lifts—*Marryat & Scott, Ltd., 40-57, Hatton Garden, E.C.1.
Laboratory Fittings—*Baird & Tatlock, Ltd., 14-15, Cross-street, Hatton Garden, E.C.1.

Hailsham.—Sewage disposal works at Horeham-road, also main and subsidiary sewers throughout Heathfield parish, totalling approximately 11 miles, for the R.D.C. Mr. W. O. Humphery, engineer and surveyor, 17, London-road:—

Howard Farrow, London	£71,821 14 7
W. & C. French & Son, Buckhurst Hill	64,314 12 6
D. T. Jackson, Ltd., Barking	61,209 5 5
Exors. S. Carey, Bexhill	58,990 7 0
Thomas Muirhead & Co., London	58,760 9 2
G. Wimpey & Co., London	57,542 15 3
Crawford Bros., London	54,384 1 2
Norman Smith & Sons, Maidstone	53,342 19 9
Messrs Bros., London	49,900 0 5
*E. D. Winn & Co., London	47,845 8 2
Walter Jones & Sons, London	45,940 15 8

Horbury.—Detached house in Horbury-road, Wakefield, for Mrs. S. Hofmann. Messrs. W. Wrigley & Son, architects and surveyors, 2, King-street, Wakefield. Quantities by the architects:—

Builder—*W. H. Nicholson & Sons, Duke of York-street, Wakefield.
Joiner—*H. Bennett, Windwill-lane, Rothwell.
Plumber—*H. Gilliott, Cheapside, Wakefield.
Tiler—*J. W. Illingworth, Ltd., York-street, Wakefield.
Plasterer—*W. J. H. Crowther, Rein-road, Morley.
Electrician—*H. Smith, Dewsbury-road, Wakefield.
Painter—*H. Taylor, Batley-road, Alverthorpe.

Horsham.—Electricity sub-station at Spooners-road, Roffey, for the U.D.C. Mr. C. G. Atkinson, Surveyor:—

T. Shaw & Son, Horsham	£330
Hoad & Taylor, Horsham	280
Murrell Bros., Horsham	253
Bartley & Ward, Ltd., Crawley	320
*H. Lindfield & Son, Brighton-road, Horsham	249

Hounslow.—In connection with the tender for the erection of an elementary school in Cranford-lane, Heston, for the Heston and Isleworth U.D.C., which appeared in our last issue, we regret to state that the estimate of £15,419 8s. 3d. of Mr Sidney E. Adams, 51, Chalkwell-avenue, Westcliff-on-Sea, was omitted from the list. The accepted tender, by Messrs. T. Hiscock, Ltd., of Hounslow, was £15,190.

King's Lynn.—New arcade in High-street, for Messrs. Jermyn & Sons, Ltd. Messrs. John Laurie Carnell, F.R.I.B.A., and W. Dymoke White, L.R.I.B.A., Paradise-chambers, King's Lynn, architects:—

Brickwork, steelwork, etc.—*R. W. Dye.
Shop fronts, etc.—*J. Medwell & Sons.
Glazing—*W. Lock & Son.
Plastering—*P. W. Green.
(All of King's Lynn.)

Leeds.—Painting the inside at Children's Homes, Wood-lane, Rothwell, near Leeds, for the B.G.:—

*W. Greenwood & Sons, 231, Hunslet-road, Leeds.

Leeds.—Installation of electric light at two children's homes at Street-lane, Roundhay, for the B.G.:—

*J. E. Bedford & Son, 116-118, Harrogate-road, Chapel Allerton, Leeds.

Leeds.—Repairing roads at the institution, Rothwell Haigh, near Leeds, for the B.G.:—

*Bryan & Proctor, 14, Greenmount-place, Holbeck, Leeds.

Leeds.—Installation of low pressure hot water heating apparatus in new children's homes, Street-lane, Roundhay, for the B.G.:—

*Rosser & Russell, Ltd., 21, Aire-street, Leeds.

Leeds.—Reconstruction of 5, Trinity-street, for Mr. J. Longley. Messrs. A. & F. Mosley, Ltd., architects:—

*J. T. Wright & Sons.

Leeds.—Extensions and alterations at the Enfield Bakeries, Sheepscar, for Messrs. Boyd, Ltd. Mr. V. Bain, architect, Albion-street:—

Main Contract—*J. T. Wright & Son.
Asphalters—*Tunstall's Rock Asphalte Co., Ltd.

Leeds.—Reconstruction of 61, Bear-lane, for Messrs. J. F. Rhodes & Sons, Ltd.:—

Building and Shopfitting—*Wm. Mason & Sons, Ltd.
Electrician—*A. English.

Leeds.—Block of shops and offices fronting the new "Headrows" thoroughfare, for the Corporation. Mr. G. W. Atkinson, architect:—

Main Contract—*J. T. Wright & Sons.
Steelwork—*S. Butler & Sons, Ltd.
Foundations—*M. Harrison & Co.

Leicester.—Alterations to (*a*) conveniences at Market-place and (*b*) erection of conveniences at Humberstone-park and at Welfare-road, for the Corporation. Mr. A. T. Gooseman, Borough Surveyor:—

(*a*)*J. C. Kellett & Son	£525
(*b*)*J. C. Kellett & Son (Humberstone Park	1,696
Welfare-road	1,105

Littlehampton.—Conveniences at Sluice Cottage, on the sea front, for the U.D.C. Mr. Leslie G Dashper, surveyor:—

*J. Linfield & Sons, New-road, Littlehampton	£3,425

London.—The following contracts have been entered into by the H.M.O.W. Department during the fortnight ended the 26th ult.:—

Houses of Parliament, S.W.—stone carving—R. L. Boulton & Sons, Bath-road, Cheltenham.
Mayfair telephone exchange—erection—Galbraith Brothers, Ltd., 71, Waterloo-street, Camberwell.
Burton-on-Trent — alterations to grain warehouses to form employment exchange—H. Edwards, Ltd., 55, Blackpool-street, Burton-on-Trent.
Birmingham Head Post Office—painting—J. E. Harper & Son, Ltd., 72-82, Lombard-street, Birmingham.
Glasgow Central employment exchange—supply, etc., steelwork—W. Baird & Son, Temple Iron Works, Anniesland, Glasgow.
Peterborough Head Post Office—alterations—W. Jellings, 176, Cromwall-road, Peterborough.
Ordnance Survey Office, Southampton—painting—A. E. Jukes, Ltd., Paynes-road, Southampton.
"Bucknalls," Watford—alterations, etc.—Payne Brothers, Leavesden, Watford.
Ewell telephone exchange—erection—H. H. & F. Roll, Ltd., High-street, Epsom.

London.—Installation of lavatory basin and hot water service at Andover-row school, Hornsey-road, N.7, for the Guardians of the Parish of St. Mary-Islington. Messrs. Vine & Vine, AA.R.I.B.A., architects, Tudor-chambers, Station-road, Wood Green, N.22:—

A. Miles	£690 9
Leonard Lown & Co.	680 0
F. Johnson	605 0
Stevens & Sons	597 0
B. Finch & Co., Ltd.	587 0
G. Jones & Son	578 0
Griffiths, Sons & Cromwell, Ltd.	566 0
King & Stannard	519 0
Heath & Chapman	508 0
National Heating Co. (1928), Ltd.	496 0
*A. O. Newman, Ltd., 4, Crescent, Minories, E.C.3	480 0
(All of London.)	

London.—Lavatories at the Shirley Schools, Wickham-road, Shirley, near Croydon, for the Berdmondsey Guardians:—

A. H. Roper, Ltd.	£690
R. Mansell	597
*H. W. Spinks, 190, Tooley-street, S.E.1	575
Horder & Son	563
(All of London.)	

London.—Painting works at parks and open spaces in the north-west district, for the L.C.C.:—

A. & F. Polden, Ltd.	£2,880
Whithys, Ltd.	2,868
G. Barker	2,799
Roy Gibson	2,794
*Marchant, Hirst & Co., Kentish Town	2,690
Chief Officers, parks department, estimate	3,000
(All of London.)	

London.—Three lock-up shops, one coal-shop and store, and two lock-up workshops in Watergate-street, Hughes-fields estate, Deptford, for the L.C.C.:—

Marrable Bros.	£2,750
R. Woollaston & Co.	2,348
Triggs & Co., Ltd.	2,325
Wm. Mills & Sons (Builders and Contractors), Ltd.	2,275
R. J. Rowley, Ltd.	2,248
W. J. Dixon & Sons	2,087
*Thos. D. Leng, Evelyn-street, S.E.	1,937
Architect's estimate	1,995

(Subject to approval of M.H.)
(All of London.)

London.—Heating work at the Hammersmith school of arts and crafts and building trade school, for the L.C.C.:—

Bilbie, Hobson & Co.	£2,968
Deane & Beal, Ltd.	2,554
J. Jeffreys & Co., Ltd.	2,389
J. & F. May	2,384
W. G. Cannon & Sons, Ltd.	2,332
Colley, Meikle & Co., Ltd.	2,268
Brightside Foundry & Engineering Co., Ltd.	2,128
*H. J. Cash & Co., Ltd., Caxton House, Tothill-street	2,048
Chief Engineer's estimate	2,925

(All of London.)

London.—Minor improvements at Pritchard's-road Council school, Bethnal Green, for the L.C.C.:—

W. Silk & Son, Ltd.	£3,107
C. P. Roberts & Co., Ltd.	2,985
George Keetch & Sons	2,619
Marrable Bros.	2,590
Whitbys, Ltd.	2,579
George Barker	2,489
W. J. Dixon & Sons	2,387
*R. Woollaston & Co., 40, Turner's-road, Limehouse, E.3	1,998
Architect's estimate	2,475

(All of London.)

London.—Installation of hot-water heating apparatus at the City Library Institute, Holborn, for the L.C.C.:—

Heywood & Bryett	£1,348
Clark, Hunt & Co., Ltd	1,323
J. Jeffreys & Co., Ltd.	1,286
J. & F. May	1,274
George Davis	1,269
W. G. Cannon & Sons, Ltd.	1,255
H. & H. Davies & Co., Ltd.	1,240
*Wm. Griffiths, Sons & Cromwell, Ltd., 400c, Caledonian-road, N.7	1,216
Architect's Estimate	1,320

(All of London.)

London.—Blocks of shops and offices in Fishmonger-alley, E.C.3. Messrs. Henry Tanner, architects, 3, Hanover-square, W.C.1.:—
Contractors—*Turnbull & Sons, Northumberland-avenue, E.C.4.
Artificial Stone—*Patent Victoria Stone Co., Ltd.
Constructional Steelwork—*Smith, Walker, Ltd.
Steel Casements—*Wotton & Son, Croydon.
Asphalte—*Engert & Rolfe, Ltd.
Wood Block Flooring—*Jos. F. Ebner.
(All of London.)

London.—Elementary school, including the supply of the necessary furniture, on the south-eastern site of the Streatham-vale housing estate, for the L.C.C.:—

Fred & T. Thorne	£33,926
Prestige & Co., Ltd.	33,250
Rice & Son, Ltd.	32,028
J. & C. Bowyer, Ltd.	31,987
Rowley Brothers (1929), Ltd.	31,680
Galbraith Brothers, Ltd.	31,613
Thomas & Edge	31,275
John Garrett & Son, Ltd.	30,966
W. H. Gaze & Sons, Ltd.	30,873
Albert Monk	30,700
J. E. Billings & Co., Ltd.	30,241
Leslie & Co., Ltd.	29,993
A. E. Symes, Ltd.	29,897
*G. H. Denne & Son, Ltd., 24-27, High Holborn, W.C.1	29,887
Architect's estimate	31,189

London.—Elementary school in Henwick-road, on the Eltham estate, for the L.C.C.:—

William F. Blay, Ltd., Dartford	£36,308	0
C. F. Roberts & Co., Ltd.	35,660	0
Prestige & Co., Ltd.	35,519	0
Wm. Akers & Co., Ltd.	33,919	0
Jas. Smith & Sons (Norwood), Ltd.	32,950	0
F. R. Hipperson	32,877	0
Albert Monk	32,430	0
Leslie & Co., Ltd.	32,119	0
G. E. Wallis & Sons, Ltd., Maidstone	31,991	0
Rowley Brothers (1929), Ltd.	31,958	0
John Garrett & Son, Ltd.	31,866	0
Fred & T. Thorne	31,624	16
H. Kent	31,601	0
Wilson Lovatt & Sons, Ltd., Wolverhampton	31,298	6
Thomas & Edge	31,257	0
Galbraith Brothers, Ltd.	30,700	0
John Crowdson, Ltd.	30,359	0
J. E. Billings & Co., Ltd.	29,999	0
*W. H. Gaze & Sons, Ltd., 23, High-street, Kingston-upon-Thames	29,914	0
Architect's estimate	30,474	0

(All of London.)

London.—Metalwork centre at the North Kensington central mixed school, for the L.C.C.:—

J. & C. Bowyer, Ltd.	£927
G. Godston & Sons, Ltd.	925
Y. J. Lovell & Son	918
G. N. Watts, Ltd.	878
Sims & Russell	874
A. & F. Polden, Ltd.	859
John Marsland & Sons, Ltd.	854
C. H. Boyd & Son, Ltd.	842
W. H. Cooper & Son	829
W. E. Greenwood & Son, Ltd.	813
*J. D. Hobson, Ltd., 388, West End-lane, Hampstead, N.W.6	755
Architect's estimate	791

London.—Erection of a day open-air school on the Downham estate, for the L.C.C.:—

F. R. Hipperson	£6,054
Mullen & Lumsden	5,369
G. E. Walli & Sons, Ltd., Maidstone	5,170
William Akers & Co., Ltd.	5,168
J. & C. Bowyer, Ltd.	4,967
Humphreys, Ltd.	4,945
Fred & T. Thorne	4,909
R. Dixon & Sons	4,831
William Harbrow (1928), Ltd.	4,777
Triggs & Co., Ltd.	4,774
Marrable Bros.	4,720
Hill & Gurr, Bromley	4,718
J. W. Ellingham, Ltd., Dartford	4,643
Leslie & Co., Ltd.	4,547
W. H. Gaze & Sons, Kingston-upon-Thames	4,437
*Burnand & Pickett, Ltd., Wallington	4,410
Architect's estimate	4,606

(Remainder of London.)

Manchester.—Installation of electrical lighting at (a) Birchfields-road municipal school, for the E.C., and (b) North Manchester High School for Boys:—
(a) *Brookes & Co. (1925), Ltd., Manchester.
(b) *R. Seddon & Sons, Manchester.

Manchester.—Public baths at Levenshulme, for the T.C. Mr. H. Price, City Architect:—
*J. H. Billings & Co., Manchester.

Manchester.—Alterations to premises in Thomas-street, for Messrs. A. Marks & Co., 18, Thomas-street. Mr. H. S. V. Newsome, architect, 2, Blue Boar-court:—
*H. Matthews & Sons (Builders), Ltd., Manchester.
Lifts—*Wadsworth & Sons, Ltd., Bolton.
Shop Fronts—*E. Pollard & Co., Ltd., Manchester.

Manchester.—Ladies' convenience in Blackley estate recreation ground, for the Corporation:—
*F. Goodyear & Sons, Gorton.
Plumbing and Glazing—*R. Fazakerley & Co., Droylesden.

Manchester.—Licensed premises on Littleton-road, Lower Kersal, Salford, for Messrs. Groves & Whitnall, Ltd., Regent Brewery, Regent-road. Messrs. Charles Clegg & Son, architects, 30, Brown-street, Manchester:—
*Tinker & Young, Ltd., Manchester.
Excavating, Draining and Bricklayer—*G. & W. Smith, Hyde Grove, Manchester.
Mason—*G. M. & H. Nuttall, Ltd., Whitefield.
Steelwork—*Redpath, Brown & Co., Ltd., Manchester.
Slater—*J. Valentine & Sons, Eccles.
Plumbing—*J. A. McCrea & Sons, Manchester.
Plastering and Painting—*C. Bell, 177, Cheetham Hill-road, Manchester.
(£25,000 estimated cost.)

Nottingham.—Relaying of about 470 square yards of maple wood block flooring at Bagthorpe Infirmary, for the B.G.:—
*C. Stone, 69, Sedgley-avenue, Swinton, Nottingham £115 14 6

Nuneaton.—Classrooms at the Attleborough Council school, for the E.C. Mr. R. C. Moon, Borough Surveyor:—

Watkins & Sons, Nuneaton	£2,428
G. E. & W. Wincott, Chilvers Coton	2,400
—. Lane, Coventry	2,326
J. D. Cooper & Co., Nuneaton	2,287
W. H. Jones & Son, Coventry	2,280
Meigh & Green, Nuneaton	2,227
T. Hickman & Sons, Market Harborough	2,194

Oldbury.—Licensed premises in Basons-lane, for Messrs. Mitchells & Butlers, Ltd., Cape Hill Brewery, Birmingham. Messrs. Wood & Kendrick & Edwin F. Reynolds, F. and A.R.I.B.A., architects, 57, Colmore-row, Birmingham:—
*J. Dallow & Sons, Birmingham.

Oldham.—Electric lighting (a) to the new clinic at Scottfield, and (b) electrical wiring work between the transformer house at the Municipal Technical College and machines in the spinning and weaving rooms, for the E.C.:—
(a) *S. Charlesworth & Co.
(b) *W. Caton & Sons.
(Both of Oldham.)

Orrell.—Detached double-fronted house in Orrell-road, for Alderman W. Glover, J.P. Messrs. H. Walls & Son, architects, 5, King-street:—
*W. Glover & Sons, Saw Mills, Wigan.

Pontefract.—For (1) detached house, Darrington, for Mrs. Everett; and (2) extensions to the commercial garage, Leeds, for Messrs. C. H. Pickles, Ltd.; also (3) extensions to the Eagle Works, Pontefract, for Messrs. Ewbank's, Ltd. Messrs. Hustler & Taylor, 25, Ropergate. Quantities by the architects:—

(1)

Builder—*J. Featherstone.
Joiners—*Josh & Depledge.
Plumber—*E. Johnson.
Slaters—*Stewart Bros.
Plasterer—*J. Shaw.
Painter—*S. Harrison.
(All of Pontefract.)

(2)

*J. H. Wright & Son, Leeds.

(3)

Barber & Heseltine	£1,564	4	6
Wm. Horner & Son	1,537	18	10
T. W. Senior & Son	1,513	9	5
H. Taylor	1,509	13	9
*Geo. Ward & Son	1,477	18	8

(All of Pontefract.)

Portslade.—New system of heating, provision of a medical room and reconstruction of the lavatory at the Mile Oak school, for the L.C.C.:—

New Boiler Room, Chimney Shafts, etc.—	
Saunders', Brighton	£1,375
Field & Co., Ltd., Brighton	1,368
G. H. Denne & Sons, Ltd.	1,327
J. Parsons & Sons, Ltd.	1,326
Hall Bedall & Co., Ltd.	1,295
White & Sons	1,269
*James Bodle, Ltd., 4, Grand Parade, Brighton	1,145
Heating and Hot-Water Supply—	
H. & H. Davies & Co., Ltd., Quill Lane	£2,702
W. H. Fellingham, Brighton	2,395
The Fretwell Heating Co.	2,350
Clark, Hunt & Co., Ltd.	2,320
The Brightside Foundry & Engineering Co., Ltd.	2,298
W. G. Cannon & Sons, Ltd.	2,264
*Adams Bros. & Broadbridge, Ltd., 11 and 12, Trafalgar-street, Brighton	2,136

(Architect's estimates £2,600 and £1,303 respectively.)

Portsmouth.—New shop front and alterations at 63, Albert-road. Mr. G. E. Smith, architect, Victoria-road:—

John Croad, Ltd., Portsea	£1,991 5
S. Salter, Southsea	1,991 0
F. J. Privett, Southsea	1,875 0
John Lay & Co., Portsmouth	1,795 0
A. E. Porter & Son, Portsmouth	1,631 18
*G. J. Davis & Sons, Southsea	1,554 0

Preston.—P.M. Sunday school at Catforth, for the Rev. F. S. Button & Trustees. Mr. J. Miller, architect, 14, Chapel-street:—

*G. W. Grange & Sons, Ashton, Preston.

Rochdale.—Alterations new sanitary conveniences and electric light installation at the Bridge Inn public-house, Oldham-road, for Messrs. Phœnix Brewery Co., Ltd., Heywood. Mr. H. H. Clough, L.R.I.B.A., architect, Newgate-chambers:—

*J. Blomley, Rochdale.

Salford.—Additional story to works, for Messrs. Matthew Wells & Co., Ltd. Mr. Sydney Moss, A.R.I.B.A., architect, 4, St. Ann's-square, Manchester:—

*P. Hodkinson, Ltd., Ardwick, Manchester.

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Scarborough.—Extensions and alterations at the Pavilion Hotel, Pavilion-square. Mr. F. Tugwell, architect, Westborough:—

Main Contract—*A. W. Sinclair & Sons.
Asphalters—*Tunstall's Rock Asphalte Co., Ltd.

Stafford.—Police station in Bath-street and Albion-place, for the Corporation. Mr. W. Plant, Borough Engineer:—

*G. Sandy & Co., Stafford £12,345

Stoke-on-Trent.—Electricity sub-station in Kingsway, for the T.C. Messrs. Wood & Goldstraw, architects, Town Hall, Tunstall:—

*Young & Son, Longton £1,415

Stoke-on-Trent.—Sub-station in Newfields, Tunstall, for the Corporation. Messrs. Wood & Goldstraw, architects, Town Hall, Tunstall:—

*T. Walker & Son, High-street, Tunstall £650

Sutton.—New front premises for Messrs. Shinners (Second Section). Messrs. George Baines & Son, FF.R.I.B.A., architects, 121, Victoria-street, Westminster, S.W.1. Messrs. L. A. Francis & Sons, Surveyors, Vernon House, Sicilian-avenue, W.C.1:—

*E. H. Smith, 48, Wellesley-road, Croydon £19,582

New arcade shop fronts—
*Courtney Pope & Co., Ltd., Amhurst Park-works, Tottenham, N.15 5,860

Tavistock.—Public convenience at Horrabridge, for the R.D.C. Mr. T. H. Harris, Sanitary Inspector:—

W. Cole, Petertavy	£430 0
Youldon & Barrett, Yelverton	412 10
J. L. Richards & Son, Bere Alston	395 0
C. Doidge & Sons, Tavistock	390 0

Trim.—Alterations and improvements at the Maternity Hospital, for the Meath County Board of Health and Public Assistance. Mr. Thomas H. Leech, Navan:—

E. S. Sargent, Trim	£2,394 10
*P. Coldrick, Navan	2,380 0

Wolverhampton.—Extensions to premises in Victoria-street, for Messrs. J. Beattie & Co., Ltd., Victoria-street. Mr. G. de C. Fraser, architect, Dale-Street, Liverpool:—

*Wilson Lovatt & Sons, Ltd., Wolverhampton.

Yeovil.—Alterations.—To the Corn Exchange, for the T.C. Mr. A. J. Price, Borough Surveyor:—

*W. John, Llantrisant, Glam. ... £69,694 0 6

York.—Additions to 22, 24 and 26, Blossom-street, for the Committee of the York Railwaymen's Club and Institute:—

*G. Walker & Sons, Stonegate, York.

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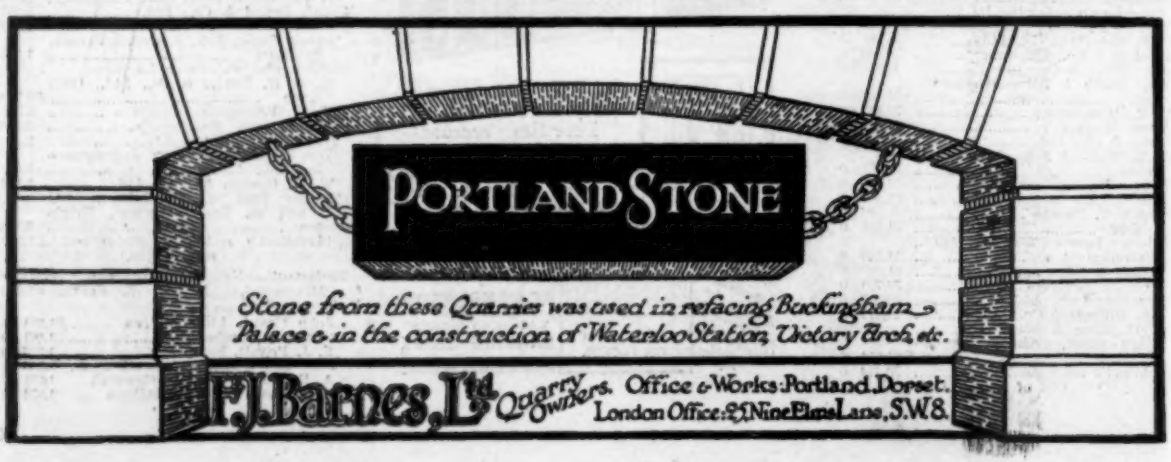
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